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UGANDA PROTECTORATE

Annual Report
# of the
Medical Department

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FOR THE YEAR ENDED 31ST DECEMBER, 1955

BUREAU OF HYGIENE & TROPICAL DISEASES
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Annual Report
# of the
Medical Department

For the Year Ended 31st December, 1955

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UGANDA PROTECTORATE

MEDICAL DEPARTMENT

Annual Report

For the year ended 31st December, 1955

I.—GENERAL REVIEW

The first half of the year saw a series of changes in headquarters staff due to retirements, death, and new appointments.

In February a resolution was moved by the Director of Medical Services in Legislative Council that a committee be appointed to examine the present stage of development of the medical and health services in the Protectorate and, having regard to available resources of manpower and finance, to make recommendations for future policy. A committee was appointed with Professor A. C. Frazer, M.C., D.Sc., F.R.C.P., as chairman, and the following as members:—

Dr. S. J. Scurlock, O.B.E., M.C., M.S., M.R.C.P.
Mr. H. J. Croot, M.B., F.R.C.S.
Mrs. Florence Lubega, Dip.Ed.(Oxon.).
Dr. I. K. Majugo, Dip.Med.(E.A.).
Mr. A. G. Mehta.
Captain H. M. Naylor, O.B.E.
Dr. Cicely D. Williams, D.M., F.R.C.P.

The committee commenced their duties in mid-August and continued until mid-November; during this time they travelled extensively throughout the Protectorate visiting medical institutions and interviewing staff of the Medical Department, officials of other departments and members of the public.

Their report was submitted to His Excellency the Governor at the end of December.

As a result of a mutiny in the Southern Sudan in August a large number of refugees crossed the frontier into Uganda. Five of these were found to be suffering from smallpox. Isolation of the infected cases and vaccination of contacts and of the local population prevented any spread of the disease.

The limited number of professional and trained technical staff has prevented any considerable planned expansion of the medical and health services. It has been with the greatest difficulty that existing hospitals, dispensaries and maternity units have continued to fulfil their functions. There has, however, been a continual demand for expansion, especially on the curative side, which cannot be satisfactorily met until the training schools can provide an adequate number of qualified staff.

Mulago Hospital in Kampala continues to play an important part as a teaching hospital both for the Makerere Medical School and for the Mulago Nursing School. It is appreciated that the number of the professional staff at Mulago is disproportionate when compared with that available for the districts, nevertheless the need for the maintenance of a high standard at the teaching school is considered to justify the position.

Excellent work has been done in the rural districts in protection of water supplies and improvement of housing and environmental sanitation.

Shortage of staff did not permit the filling of the vacancy for a Senior Medical Officer (Health Education) which became vacant in the early part of the year. Health exhibits have been staged at county shows and housing competitions have been held in certain areas, but the main dissemination of health education is taking place on a personal level. Whenever possible maternity and child welfare clinics, medical services to schools, and leprosy clinics are organised and conducted by Medical Officers and Nursing Sisters. Further health education is given by Health Inspectors and the hygiene staff. In three districts qualified Health Visitors have been posted for duties which are almost exclusively concerned with the prevention of disease.

Visual proof of the results of health education can be seen along the whole of the 21 miles of the road between Entebbe and Kampala. Grass huts have been replaced by mud and wattle, and mud and wattle houses by brick and stone. Roofs of thatch have given way to corrugated iron and tiles, windows and doors are almost universal, and in places a real pride is manifested by the laying out of small gardens with flowers or flowering shrubs. It is appreciated that credit for these advances cannot be claimed by the Medical Department alone but is the result of increased education, better agricultural and veterinary practices, and development of a community sense which arouses enthusiasm and even stimulates rivalry for better housing. Added to this is the increased availability of locally produced materials such as tiles, bricks and cement. In the latter part of the year the local production of corrugated asbestos sheets was commenced; this should supply an important need in the building of African houses.

With the implementation of the Buganda Agreement and the powers granted to the African District Councils under the District Council's Ordinance, an increasing responsibility for health functions has been assumed by local governments. Plans are being prepared for the larger townships to undertake management of their own affairs and in such places as Jinja, Mbale and Masaka an advanced stage has been reached. This devolution to local authorities should create an increased interest in local health problems and, it is hoped, will lead to a greater appreciation of medical economics and a more realistic approach to the problems of ill-health, by ensuring that the comparatively small amount of money available for health work is used to the greatest advantage.

During the year a ministerial system was introduced and the Director of Medical Services ceased to be a member of the Executive and Legislative Councils.

STAFF

Recruitment of medical staff from overseas was satisfactory. By including Medical Officers, Assistant Medical Officers and Assistant Surgeons in one group an establishment of 116 was created, thus making it possible to recruit from overseas to vacancies created by the resignation of Medical Officers (East Africa) or Assistant Medical Officers. At the end of the year there were only seven vacancies in this establishment, compared with 20 vacancies 12 months earlier. But for a restriction of recruitment owing to shortage of housing it is possible that the number of vacancies would have been smaller still.

The establishment of Nursing Sisters was increased by 12 to a total of 70, exclusive of a teaching staff of eight. The nine vacancies which existed at the end of the year were filled by temporary local appointments.

The cadre of Matrons remained at seven but two posts were upgraded making a total of four Grade I posts and three Grade II posts.

With the exception of Pharmacists, recruitment of staff from overseas was good.

The number of trained African staff is still insufficient to permit existing institutions to be run as efficiently or effectively as is possible. Until there is a larger staff it is impossible to meet the constant pressure for expansion of curative services. There is still much resigning and rejoining which creates difficulties in maintaining regular establishments.

The following table shows the position regarding locally trained nursing and midwifery staff:—

TABLE I

	Total 31–12–54	Re-engaged	Entered Government service following training	Left Government service	Total 31–12–55
Medical Assistants . .	238	2	13	10	243
Nurse Midwives . .	26	9	11	6	40
Certificated Nurses . .	91	27	22	38	102
Midwives	125	22	16	28	135
Senior Nursing Orderlies	102	—	17	4	115

Full details of staff are given in Appendix IV.

Distinguished Visitors

Colonial Office

Dr. Wallace Fox, Tuberculosis Research Unit of the Medical Research Council.
Mr. G. A. Haswell, Assistant Colonial Liaison Officer.
The Higher Education Working Party of the Colonial Office.
Mr. N. D. Watson, O.B.E., Head of Social Services.
Mr. W. A. C. Mathieson, C.M.G., East African Section.

United Nations Organisation

Dr. H. G. Baity, Director of Divisional Environmental Sanitation of World Health Organisation, Headquarters, Geneva.
Dr. C. J. Hackett, World Health Organisation, Venereologist.
Dr. Turner, World Health Organisation. (Undertaking training of Hygiene staff in Nigeria).

Mr. F. W. Tooby
Dr. H. Moller
Dr. C. Egger
Dr. Sutton
U.N.I.C.E.F.
Dr. Norman Taylor.
Dr. Lydia Roberts, F.A.O.

Sims Commonwealth Travelling Professor

Dr. Donald Hunter.

United States Naval Medical Reseach Unit No. 3

Dr. Dimmette.
Dr. Sproat.

Others

Dr. B. Schlesinger, Hospital for Sick Children, Great Ormond Street, London.
Dr. D. A. Cannon, Senior Pathologist, Nigeria.
Dr. Knowelden, Medical Statistician.
Mr. George Kimble, 20th Century Fund.
Professor A. Haddow, Director of Charles Beaty Research Institute at the Royal Cancer Hospital.

II.—VITAL STATISTICS

No additional information regarding the vital statistics of the population has been published this year apart from the records of births and deaths of non-Africans compiled by the Registrar General. The Frazer Report includes a recommendation that a Committee should be set up to consider ways and means of increasing the accuracy of the records collected by chiefs and for the making of sample surveys to assess the general true worthiness of their returns. The next census will be held in 1958. Most of the statistics which follow are based on information supplied by the East African Statistical Department.

GENERAL POPULATION

The estimated mid-year population to the nearest 100 for the seven years since the 1948 census is given in Table No. II. The figures are based on an estimated natural increase per annum of 1% for Europeans, 2½% for Asians and 1½% for Africans. Net migration for non-Africans was calculated from incomplete data. The net immigration of Africans may be considerable but cannot be known accurately until the next census.

TABLE II

De Facto Mid-Year Population Estimates

Year	NON-AFRICAN					AFRICAN	TOTAL
	European	Indian and Goan	Arab	Other	Total		
1948 ..	3,600	36,000	1,500	800	41,900	4,907,000	4,949,000
1949 ..	4,200	38,200	1,600	900	44,900	4,981,000	5,026,000
1950 ..	4,800	40,500	1,600	1,000	47,900	5,055,000	5,103,000
1951 ..	5,400	42,800	1,700	1,000	50,900	5,131,000	5,182,000
1952 ..	6,000	45,100	1,700	1,100	53,900	5,208,000	5,262,000
1953 ..	6,600	47,400	1,800	1,100	56,900	5,286,000	5,343,000
1954 ..	7,200	49,700	1,900	1,200	60,000	5,365,000	5,425,000
1955 ..	7,800	52,000	1,900	1,200	62,900	5,445,000	5,508,000

The sex ratio for each race at the time of the 1948 census is indicated in Table III. It is to be noticed that numbers of male and female Africans are almost identical.

TABLE III

Population by Race and Sex, 1948

Sex	NON-AFRICAN							AFRICAN	TOTAL ALL RACES
	European	Indian	Goan	Arab	Coloured	Other	Total		
Male ..	1,910	18,837	876	944	312	112	22,991	2,458,403	2,481,394
Female	1,538	14,930	572	531	331	72	17,974	2,459,152	2,477,126
TOTAL	3,448	33,767	1,448	1,475	643	184	40,965	4,917,555	4,958,520

In planning the distribution of new medical units note must be taken not only of the population of each district but also the density of population in different regions. Tables IV and V give information on this subject in relation to the African population of Uganda as calculated on the last census figures. Comparative density of the three main East African territories are of interest. In Uganda 30% of the people were living in density of 100–250 per square mile. The corresponding figure for Kenya was 54%, and for Tanganyika 13%.

TABLE IV

Population Density by Province, District and Race, 1948

Province and District	*Area in sq. miles	African	Density per sq. mile
BUGANDA—			
Mengo	10,515	899,596	86
Masaka	4,101	317,688	77
Mubende	2,679	84,878	32
TOTAL ..	17,295	1,302,162	75
EASTERN—			
Busoga	3,709	505,998	136
Mbale	3,340	599,950	180
Teso	4,649	402,564	87
TOTAL ..	11,698	1,508,512	129
NORTHERN—			
Acholi	11,139	215,655	19
Lango	4,650	265,890	57
Karamoja	11,472	125,567	11
West Nile and Madi ..	5,907	336,063	57
TOTAL ..	33,168	943,175	28
WESTERN—			
Bunyoro	4,847	108,380	22
Toro	5,143	258,873	50
Ankole	6,172	400,924	65
Kigezi	1,969	395,529	201
TOTAL ..	18,131	1,163,706	64
GRAND TOTAL ..	80,292	4,917,555	61

*Land and swamp areas.

Total open water areas	..	13,689 square miles.
Total land and swamp areas	..	80,292 square miles.
Total Protectorate area	..	93,981 square miles.

TABLE V

Distribution of Population of Districts by Density per Square Mile, 1948

	Number of people per square mile					
	0–9	10–49	50–99	100–149	150–199	200–249
Population ..	40,965	534,480	2,881,598	505,998	599,950	395,529
Percentage ..	1	11	58	10	12	8

BIRTHS AND DEATHS

Non-Africans.—All births and deaths of non-Africans are required to be reported to the Registrar General, but analysis of returns suggests that there may be considerable inaccuracies, in particular the figure for Asian deaths may be too low.

In 1955 there were 222 births and 19 deaths reported from the European population of 7,800. The corresponding figures for Indians and Goans together were 3,146 births and 219 deaths of the estimated population of 52,000. No deductions regarding returns can be made from these figures as the present age structure of the resident population is not known.

Appendix VI (C) analyses the causes of death of all non-Africans. European deaths from injuries accounted for 47% of the total of 19, compared with 13% for all other non-Africans out of a total of 251.

Africans.—Records from individual districts which are believed to be fairly reliable have indicated birth rates as low as 30 per thousand and as high as 48 per thousand. The overall birth rate is likely to be about 40 per thousand. The death rate may be upwards of 20 per thousand.

From detailed surveys in limited areas at the time of the last census information concerning fertility and size of family was obtained. Considering all women of child bearing age 16–45 alive on a particular day, they showed an average of 2·7 live births per woman to date. By questioning women of 46 and over, information was obtained regarding the total number of live children born to each woman. These figures also throw some light on the average size of family, (*see* Table VI).

Of all children born alive from 10 to 30% may have died before reaching the age of 12 months, but this figure may be nearer 50% in the most backward areas.

TABLE VI

Live Births of Women of Recorded Ages 46 and Over

Average number of live births per woman	Percentage distribution of women by number of live births										
	0	1	2	3	4	5	6	7	8	9	10+
4.8	18	6	7	7	8	9	10	9	8	6	12

The following tables summarise statistics concerning the health of Government officers and the attendance of Europeans and Asians at Government Hospitals.

TABLE VII

Health of European Officers

	1952	1953	1954	1955
Number on staff list	1,127	1,208	1,281	1,309
Average resident	934	1,052	1,085	1,152
Deaths	4	1	5	7
Invalided	6	3	4	2
Illnesses causing absence from duty	459	408	501	658
Total days off duty	3,251	2,643	2,611	2,588
Granted sick leave	54	49	45	53
Rates—				
Average number off duty daily per 1,000 residents	10	7	7	9
Average duration of absence in days	7.1	6.5	5.2	4.6

The causes of death of the officers included in the above table were:—

Male, age 47—Coronary thrombosis.
Male, age 51—Coronary thrombosis.
Male, age 36—Acute poliomyelitis.
Male, age 35—Acute poliomyelitis.
Male, age 49—Cerebrovascular haemorrhage.
Male, age 33—Motor accident.
Male, age 41—Subarachnoid haemorrhage.

TABLE VIII

Health of Asian Officers

	1952	1953	1954	1955
Number on staff list	440	326	489	567
Estimated average resident including temporary staff	550	550	700	840
Deaths	1	1	1	—
Invalided	—	3	2	9
Illnesses causing absence from duty	560	662	811	1,007
Total days off duty	3,858	2,952	4,250	3,116
Granted sick leave	11	7	10	21
Rates—				
Average number off duty daily per 1,000 resident	19	15	17	19
Average duration of absence in days	6.9	4.5	5.2	4.5

TABLE IX

Health of African Officers

	1952	1953	1954	1955
"L.C.S." Officers	2,050	2,319	2,395	2,836
Deaths notified	2	4	4	4
Invalided	3	13	7	6
Recorded illnesses causing absence from duty	163	241	405	457
Recorded days on sick list	763	1,915	2,202	2,666
Recorded number granted sick leave	3	6	8	13
Rates—				
Average number off duty daily per 1,000	10	23	25	27
Average duration of absence in days	6.7	8.0	5.4	9.0

The causes of death of the officers included in the above table were:—

Male, age 50—Carcinomatosis.
Male, age 27—Motor accident.
Female, age 35—Motor accident.
Female, age 20—Motor accident.

TABLE X

European Patients Treated at Government Hospitals

	YEAR	OFFICIAL		NON-OFFICIAL		TOTAL
		Male	Female	Male	Female	
Out-patients	1952	3,122	2,755	1,133	699	7,709
	1953	3,161	2,831	1,653	1,128	8,773
	1954	2,741	2,434	1,397	928	7,500
	1955	3,726	3,094	4,214	3,614	14,648
In-patients	1952	306	338	312	186	1,142
	1953	327	484	385	245	1,441
	1954	319	461	348	226	1,354
	1955	302	500	341	301	1,444
Deaths	1952	3	1	4	1	9
	1953	—	1	2	1	4
	1954	5	—	2	1	8
	1955	4	1	1	—	6

NOTE.—Dental patients are included in the 1955 figures but not previously.

European patients treated at the main centres were:—

	IN-PATIENTS				OUT-PATIENTS			
	1952	1953	1954	1955	1952	1953	1954	1955
Kampala ..	866	1,076	1,066	1,120	2,684	2,491	2,162	2,271
Entebbe ..	63	105	44	49	1,529	1,499	1,754	1,385
Jinja ..	137	195	179	233	1,213	1,654	1,279	1,338
Mbale ..	73	65	65	59	538	616	414	639

NOTE:—"Officials" means Uganda Government staff only.
In previous years High Commission staff were included.

TABLE XI

Asian Patients Treated at Government Hospitals

Year	OUT-PATIENTS		TOTAL	IN-PATIENTS		TOTAL
	Male	Female		Male	Female	
1952	8,510	4,445	12,955	896	1,284	2,180
1953	8,767	4,788	13,555	957	1,480	2,437
1954	7,881	4,468	12,349	872	1,434	2,306
1955	9,355	5,773	15,128	1,076	1,653	2,729

NOTE:—Dental patients are included in the 1955 figures but not previously.

Asian patients treated at the main centres were: —

	In-patients				Out-patients			
	1952	1953	1954	1955	1952	1953	1954	1955
Kampala ..	1,261	1,388	1,432	1,671	4,158	4,115	3,639	4,282
Jinja ..	383	379	236	464	2,397	1,240	995	1,220
Entebbe ..	118	122	63	53	2,562	2,155	1,795	1,905
Masaka ..	167	204	183	191	142	190	144	171
Tororo ..	70	129	67	58	2,326	2,829	1,844	2,115
Mbale ..	45	62	39	44	1,429	1,490	1,233	864

III.—PUBLIC HEALTH

A. General

As has been noted in previous years the lack of comprehensive vital statistics makes any detailed measurement of Public Health a matter of difficulty. The fact that hospitals and dispensaries do not as yet give full coverage to the population makes progress in the reduction of morbidity, as judged by the numbers of patients seen, less easy to evaluate. The main epidemic diseases are, however, well known to the public and there is little doubt that cases of such diseases are reported. No serious outbreak of epidemic disease occurred during 1955.

When assessing morbidity rates in the absence of exact figures the appearance of more effective treatment for certain diseases must be borne in mind: improved therapy may have a rapid reflection in the numbers of patients presenting themselves at Medical Units. Tuberculosis is a case in point and while those most concerned with the treatment of this disease agree that there are indications of an increase, the fact that much more can now be done in the treatment of tuberculous patients has undoubtedly led to greater numbers presenting themselves for treatment.

Malaria remains the largest single cause of reported morbidity and while large numbers of cases were treated the position with regard to its control or eradication remains a practicable proposition only in urban centres where there has been considerable success.

The large number of people who require treatment or admission to medical units as a result of road accidents together with those injured as a result of physical violence is most significant. By far the majority of these accidents are preventable. It is an index of the changing situation in Uganda when the number of people killed or injured in road accidents exceeds the number of cases of a disease such as sleeping sickness which for so many years was a major factor in the history of this Protectorate.

There are signs that the general African population is developing a greater appreciation of the value of health living and there are encouraging signs of progress in many areas in such fundamentally important matters as the improvement of housing and child care.

B. Food and Nutrition

Food Supplies

Food supplies during the year were sufficient to prevent the occurrence of famine conditions. In all districts rainfall was adequate and no measures were taken to restrict the export of foodstuffs, nor were additional imports called for.

The prevention of famines is largely the result of the policy of compulsory planting by each householder of a reserve of cassava (manioc), whose resistance and storage properties make it an ideal plant for this purpose. The success of this policy has however brought other problems in its train: cassava, being an easy crop to plant and harvest, and to cook in a variety of ways, has become popular in many areas as a regular addition to the staple foods, and, particularly with the poorer labourers, as the basis of most of their meals. Its disadvantage in this respect is its extremely low protein content (0·5–1·0%), so that its inclusion in the diet, and particularly the diet of children, without supplementary sources of protein will reduce a protein intake which in many areas is already inadequate.

In general, it is expected that districts will grow enough for their own needs and, as far as calories are concerned, such evidence as there is suggests that this expectation may be fulfilled. They may also produce an adequate amount of vegetable protein, but in many cases this is lost when the farmer sells his beans and groundnuts for consumption in an urban area or by an industrial or plantation labour force. The production of animal protein is largely concentrated in the cattle areas of the north-east and Ankole, and in the fishing industries of the lakes, particularly in the west. In the absence of an efficient system of distribution, the availability of meat and fish is limited; and in the case of fish the export of the greater part of the catch of the western lakes makes a large amount of protein unavailable for consumption in Uganda. The creation of fish ponds, and the stocking of dams by the Game Department, has been successful in many areas, but produces a comparatively small amount of fish. It is unfortunate that the Busoga Deep Water Fishing Corporation, mentioned in last year's Report, has been obliged to suspend operations.

Surveys being undertaken in the current year promise to increase our knowledge of the production and consumption of foodstuffs in representative areas of Uganda.

Following an application for technical assistance to the World Health Organisation, a Medical Officer and a Nutritionist have been made available for a project, of two years in the first instance, to study the incidence and causes of malnutrition and to train workers in this field.

AMELIORATION

The Standing Advisory Committee on Nutrition has recommended the formation of a Nutrition Unit to carry out surveys and investigations, in conjunction at present with the workers from the World Health Organisation. Provision of certain basic personnel will enable a more systematic approach to the epidemiology of malnutrition, and will permit trials of remedial measures.

Nutrition assistance and nutrition education is being carried out by Child Welfare Clinics and by womens' clubs of the Community Development Department. Assisted in some instances by the Red Cross, children's clinics are selling skim milk powder and they and women's clubs include instructions in children's feeding as a regular part of their programme.

C. COMMUNICABLE DISEASES

(1) Arthropod-Borne

MALARIA

During 1955 the rainfall was about average but was distributed in an unusual way, the first half of the year being drier than normal whereas in December the rainfall was well above average in all districts. The malaria rate throughout the Protectorate showed a slight increase, particularly in cases treated as out-patients.

P. falciparum is much the most prevalent species of malaria parasite. In a series of 8,271 positive slides taken from all races in the neighbourhood of Kampala over 95% showed *P. falciparum,* approximately 2% showed *P. malariae* and only just over 1% showed *P. vivax.* *P. ovale* was only found in 11 slides.

The total number of cases of malaria treated in hospital as in-patients was 9,297 with 270 deaths compared with 9,505 cases of malaria in 1954 with 258 deaths.

A total of 110,917 cases of malaria were treated as out-patients being the largest number of cases of any one disease to be treated in the Protectorate. In 1954, the number treated as out-patients was 88,021. It must be realized, however, that in approximately two-thirds of the cases treated as out-patients and one-third of cases treated as in-patients the diagnosis was not confirmed by positive blood slide.

An interesting trial of the use of chloroquin in African infants, many of whom have little immunity to malaria, was carried out at Mulago. It was found that parasite rates dropped more rapidly after chloroquin than after any other drug and that almost all cases of malaria settled after two or three days treatment with chloroquin.

RELAPSING FEVER

The number of cases of relapsing fever has steadily decreased since 1951 and during 1955 only 50 cases were treated as in-patients in Government hospitals as compared with 63 last year, a further 19 cases were treated as out-patients (13 in 1954). The main area where relapsing fever is found is on the west side of the Protectorate on the immigrant labour routes. The drop in numbers may be partly due to arrival of immigrant labour by lorry and not as previously by foot thus reducing the chances of disseminating infected ticks.

Dusting of huts with D.D.T. has been carried out in different areas but the number of cases of relapsing fever decreased even in places where no such dusting took place.

The numbers of cases of relapsing fever reported in Ankole and neighbouring districts during the last eight years have been:—

	1948	1949	1950	1951	1952	1953	1954	1955
Ankole	289	327	393	192	47	32	26	12
Toro	22	24	43	41	16	37	73	70
Masaka	161	105	170	156	91	70	27	22

The majority of cases in Toro District came from Katwe where dusting operations with D.D.T. were undertaken at the end of the year. It will be interesting to see the effect of this dusting on the number of cases of relapsing fever in 1956.

Housing conditions have improved near Katwe but the standards are still not sufficiently high to guarantee that *Ornithodorous moubata* cannot survive.

PLAGUE

No case of plague was reported throughout the year. Plague was common in Uganda until 1942 when the incidence started to fall steadily. Since 1947 there have only been two small epidemics, both in the same area, one in 1952 (12 cases) and one in 1954 (11 cases). These epidemics occurred a few miles from the Belgian Congo which continues to be a focus for the spread of the disease.

The health staff of the Department are continuing to carry out energetic measures to improve the standard of housing and so to lessen as far as is possible the contact of man with the rat. Particular attention is also being given to food and grain stores which all too often harbour rats.

TRYPANOSOMIASIS

There was a slight increase in the number of notifications of trypanosomiasis (114 compared with 103 in 1954).

TABLE XII

Trypanosomiasis Cases Notified

	1950	1951	1952	1953	1954	1955
BUGANDA—						
Mengo District ..	27	7	4	4	4	2
EASTERN PROVINCE—						
Busoga District.. ..	19	3	3	35	39	44
Bukedi District ..	14	7	12	62	30	37
NORTHERN PROVINCE—						
Lango District	4	9	3	10	—	12
Acholi District	2	8	10	4	5	5
West Nile District ..	8	2	6	9	20	12
WESTERN PROVINCE—						
Bunyoro District ..	2	—	—	6	4	—
Toro District	2	2	—	4	1	1
Ankole District ..	—	—	—	—	—	1
TOTAL CASES ..	78	38	48	134	103	114
TOTAL DEATHS ..	6	2	2	—	3	2

The number of cases in the Northern Province has increased, especially in the Lango District, and there were more cases in this Province last year than in any of the previous five years. One of the main foci of infection is in the Eastern Province near the Kenya border. The majority of cases in the Eastern Province have contracted the disease near the Lake Victoria islands while fishing but some of them, certainly the majority of the women and children, were infected in their homes or in clearings near their homes.

Of the 114 cases reported, there were only two deaths.

Most would appear to be of the mild *gambiense* type and the great majority showed early response to treatment, but there is the ever present fear of the spread of the more virulent *rhodesiense* type with its far greater mortality.

(2) Helminthic Diseases

DRACONTIASIS

This condition is found only in the Northern Province where it continues to give rise to a certain amount of disability. Moyo, on the Sudan border, still appears to be the most heavily infected district. For the last four years the number of cases reported from Moyo has been:—

1952	43 cases.
1953	31 cases.
1954	291 cases.
1955	148 cases.

The rise in the number of cases seen in the last two years is not thought to be due to a real increase in the incidence of the disease but to an increased attendance resulting from the excellent reports of the treatment by penicillin of the cellulitis, which is the commonest complication.

SCHISTOSOMIASIS

Opinions differ as to the importance of this disease in Africans. Some say that it appears that the African has, by prolonged infection, reached the stage of symbiotic toleration for the disease, others that the disease, especially the *mansoni* type, should be regarded most seriously. Nevertheless schistosomiasis, by increasing the parasite load, must lower resistance and increase the anaemia which is so prevalent amonst Africans. Altogether 1,533 cases were treated as out-patients and 244 as in-patients.

S. mansoni was by far the commoner except in Lango District where *S. haematobium* is prevalent and *S. mansoni* is rare.

Direct preventive measures are well nigh impossible to carry out effectively—dense areas of swamp in many areas, especially in the north, are breeding grounds for the snails which harbour the disease. Schistosomiasis will certainly not disappear until the habits of the people change and the rivers and swamps are no longer fouled.

ONCHOCERCIASIS

As the Entomological Division was almost exclusively concerned with simulium control the following extracts from the reports of the Senior Entomologist (Medical) are quoted:—

> "In the early part of 1955 the Division was in West Nile District surveying the whole of the district to assess the incidence of onchocerciasis and the distribution of the vector. It was found that onchocerciasis, transmitted by *Simulium nævei,* was distributed throughout the whole length of the upland area of the district. Despite a very high incidence of onchocerciasis it was frequently extremely difficult to find adult simulium in the act of biting and in many areas the evidence as to the identity of the vector was inferred from the presence of the pre-adult stages in the local rivers.
>
> An operation designed to free West Nile from onchocerciasis was beyond the scope of the division and it was decided to carry out a pilot scheme in the Bondo-Arivu area in which it had been found that some 80% of the adult population was infected and where it was hoped that the infected rivers were sufficiently isolated from adjoining systems to avoid cross infection.
>
> The dosing schedule started in June, 1955. Valuable experience was gained during the operation of this scheme in the practical difficulties of simulium control. These difficulties ranged from the purely domestic through the technical to the extreme of being accused of cannibalism by the local tribesmen.
>
> Assessment of the results of the West Nile experiment have not been easy. The rivers were still clear of simulium in November, 1955, but since that date other commitments have prevented any further examination.

In March, 1955 ten days were spent in Bugisu in preparing for a large scale simulium survey on the slopes of Mount Elgon. This visit was occupied in conducting demonstration surveys and in collecting material for propaganda by visual aids.

The principal work of 1955 was a survey and control operation designed to free the Budongo Forest in Bunyoro of *Simulium nævei.* The alarming discovery was made that the entire permanent staff of the District Forestry Officer was suffering from onchocerciasis and that over 80% of the labour employed by saw mills in the locality were also infected. Again, considerable difficulty was experienced in demonstrating adult flies in sufficient density to explain such a very high incidence of the disease.

The survey of the Budongo Forest proved to be a most difficult operation. Access to the rivers in the forest is almost impossible except along a few tracks opened by the Forestry Department at some time during the war. These were heavily overgrown and had to be recut. There appeared to be very little local knowledge as to the physical geography of the region and no satisfactory map of the area existed. Two important infested streams, not marked on the map, were discovered by accident when in pursuit of guinea fowl.

Again the control operation has provided valuable information, although it is doubtful if it had any very marked effect on a permanent reduction of the vector simuliid. The operation was commenced early in November. This date had been chosen as being the beginning of dry season conditions but in fact during the first two weeks of the scheme heavy rain fell almost every night. This made access extremely difficult and at one time even a short wheel base Land-Rover failed, and insecticide drums had to be moved on a caterpillar tractor. The initial results were most encouraging and after the second series of doses the treated rivers appeared to be clear of early stages of simulium. Thereafter the rains ceased and the volume and rate of flow of the rivers declined very rapidly. Concurrently the number of early stages of the fly in the rivers increased. It became clear that the flow of the rivers under dry season conditions was insufficient to carry our insecticide downstream. Investigation showed that in addition the course of several streams degenerated into swamps at several points in the depths of the forest and that these swamps were interrupting the passage of the insecticide.

It appears that a second survey must be done during which it will be necessary to follow the course of each individual river from source to its fall over the escarpment and to cut access tracks along back bearings from all points of swamp interruption: all rivers obstructed by swamps will have to receive additional doses below each point of interruption. This will prove a most uncomfortable job. Further, due to the aggressive character of the very numerous elephants in this forest, porters and African staff will not work unless a European officer, whose skill at arms they trust, accompanies the party."

ANKYLOSTOMIASIS

Ankylostomiasis is present over the majority of the Protectorate especially in the north; in Gulu Hospital 20% of the stools examined showed this infection. In Bunyoro District the following are the figures of stools found positive for ankylostomiasis: —

PERCENTAGE OF STOOLS SHOWING OVA

	1953	1954	1955
	%	%	%
Masindi	43.9	34.7	38.6
Hoima	49.0	49.4	50.3
DISTRICT TOTAL..	47.0	43.5	44.4

Although this is probably greater than the average there can be no doubt that the percentage of infection throughout the Protectorate is high, the only parts escaping are the cooler areas such as Kigezi.

Infection with ankylostomiasis leads to lowered resistance and vitality and is a common cause of the anæmia which is so prevalent amongst Africans.

FILIARIASIS

W. bancrofti infection is found in isolated pockets. Much more information is required to determine its exact distribution and there is considerable scope for more research into the prevalence of *W. bancrofti* and the resulting elephantiasis and hydrocele. The area where these two conditions are most prevalent is the Moyo District where it is reported that many of the inhabitants are affected. One man who suffered from both conditions was found to have *W. bancrofti* in his night blood.

It has previously been reported that 10% of the adult males in the West Nile District immediately to the south of Moyo were infected with *W. bancrofti*. In other districts the infection is less heavy but in Soroti hydrocele and elephantiasis provide a major part of the surgical work performed.

No investigations have yet been undertaken to identify the vector.

OTHER HELMINTHIASES

Tæniasis and ascariasis are common in many areas but probably give rise to little disability.

(3) *Direct Infections*

ANTHRAX

The number of cases of anthrax remains remarkably constant. Fifty-four cases in 1953, 61 in 1954 and 52 in 1955. The distribution was as follows: —

	1953	1954	1955
WESTERN PROVINCE—			
Kigezi	2	2	1
Toro	13	24	16
Bunyoro	34	23	19
Mbarara	—	—	9
NORTHERN PROVINCE—			
Karamoja	2	7	5
EASTERN PROVINCE—			
Teso	2	1	—
BUGANDA PROVINCE—			
Mengo	1	4	—
Kampala	—	—	1
Mubende	—	—	1
TOTAL ..	54	61	52

The majority of the cases were of the intestinal type, but from Toro District there were reports of 13 cases with cutaneous manifestations but none of intestinal anthrax. Only one death was reported. This is a low mortality rate especially as many of the cases reported for treatment very late. However as the disease is so sudden in its onset and so acute in its manifestations cases may die before reaching hospital and their deaths remain unreported.

Three suspected outbreaks were belatedly reported from Mbarara but it was impossible to investigate them properly as the infected cattle and some of the victims had already been buried.

In spite of much propaganda the people continue to eat the meat of cows which have died and, probably more serious still, of hippopotami found dead.

CHICKENPOX

This disease continued to be widespread. 2,380 cases were reported as compared with 1,481 cases in 1954. Only one death was reported.

DIPHTHERIA

Sixteen cases were reported during the year compared with eight in 1954: only one case was fatal. Three-quarters of these cases were in Kampala or Mengo District. Eight virulent strains were isolated in Kampala Laboratory, four of which were isolated in December.

INFECTIVE HEPATITIS

One hundred and twenty-nine cases were treated in hospital. There was a small epidemic of ten cases in a European school at Kigezi.

CEREBRO-SPINAL MENINGITIS

Thirty-five cases of cerebro-spinal meningitis with one death were notified as compared with 61 in the previous year. This disease is endemic, but no epidemics were reported.

MEASLES

There were 1,663 cases of measles compared with 1,165 cases notified during the previous year. Every district in the Protectorate had at least a few cases and even the isolated area of Karamoja reported 71 cases.

MUMPS

Only four cases were reported during the year as compared with 35 in the previous year.

YAWS

The incidence of yaws, unlike that of syphilis, has been reduced by the use of antibiotics. In 1954, 241 cases of yaws were treated as in-patients and 14,195 as out-patients. In 1955 the figures were 131 in-patients and 13,716 out-patients, this includes all patients with primary, secondary and real or suspected tertiary manifestations.

No widespread campaign for eradication has yet been initiated in Uganda, but in a small campaign in Kigezi District 6,000 people were injected in accordance with a policy of total mass treatment as the yaws rate was estimated to be over 20%. Unfortunately, it was difficult to estimate the result as the re-survey was poorly attended.

In Lango District an attempt is made to treat all children who live in the same house as a person with primary or secondary yaws, whether they show signs of yaws or not. This procedure will undoubtedly lead to more rapid elimination of yaws.

The treatment of individual cases (especially cases in the infectious primary or secondary stage) as they present themselves at dispensaries or hospitals will gradually lead to the elimination of this condition from Uganda.

The Protectorate will be fully prepared to participate in the scheme suggested by the World Health Organisation whereby a mass attack will be made on yaws on a regional basis without reference to national boundaries.

SMALLPOX

The number of cases notified since 1952 are as follows: —

	Cases	*Deaths*
1952 ...	243	4
1953 ...	341	2
1954 ...	199	2
1955 ...	101	2

Most of the cases were of the mild alastrim type.

In August five cases of smallpox were diagnosed in refugees who entered Uganda as a result of the mutiny in the Southern Sudan.

At the end of the year another outbreak of a more virulent type commenced in the West Nile District having most probably been introduced from the Sudan. Only in the Northern Province was there an organised vaccination campaign but elsewhere propaganda was increased and efforts made to build up an immune population.

TROPICAL ULCER

This condition is still common in many parts of the country and the time required for these ulcers to heal causes considerable blocking of beds in dispensaries and, to a less extent, in hospitals.

The advent of penicillin has materially improved this situation by lessening the time of treatment. Skin grafting by a mobile team at dispensaries again proved most satisfactory in the West Nile District. The results of 365 cases operated upon by this team were reported in the East African Medical Journal.

POLIOMYELITIS

There was a considerable increase in the number of cases of poliomyelitis notified. The figures for the last three years are: —

	Cases	*Deaths*
1953 ...	45	3
1954 ...	44	4
1955 ...	180	12

Among the deaths must be numbered one of the most valued officers of the Medical Department.

The condition appears to have been widespread and only two districts (Mbarara and Karamoja) escaped. Just over half the the cases came from Mengo District but elsewhere the disease appears to have been more in the nature of an endemic condition (even if at an increased level) than epidemic.

The nursing of cases of poliomyelitis threw a great strain on the resources of the Department. At the European and Asian Hospital, Kampala, for a short period only emergency cases could be admitted when a case requiring positive pressure treatment for respiratory paralysis demanded the attention of a large proportion of the time of the qualified staff.

TYPHOID

The number of cases of typhoid in the last three years has been: —

	Cases	*Deaths*
1953 ...	763	100
1954 ...	375	13
1955 ...	411	13

The lowered mortality is probably due to the wider use of chloramphenicol. Cases were notified from all districts with the exception of Mbale and Karamoja.

The greatest prevalence was in Mengo (130 cases), Masaka (65 cases) and Kabale (64 cases). Generally, the disease was found in sporadic form but there were several reports of small epidemics, usually in schools or prisons. There was one interesting report of four cases in a single family in Acholi. A rather more serious epidemic occurred in Luzira Prison where 15 cases were reported.

RABIES

One case of rabies was reported from the West Nile District when a child died six weeks after being bitten by a rabid dog. The child's father had neglected the advice of the Medical Assistant to get the child vaccinated.

This was the first case reported in Uganda for two years and the first case in the West Nile District for nine years. There was a considerable epidemic amongst the dogs in this district: out of 36 dogs' brains dispatched to the Veterinary Research Laboratories at Entebbe no less than 23 were found to be positive.

It is fortunate that there were not more human cases of infection. A European who was bitten by a dog which was proved by post-mortem examination of the brain to have been suffering from rabies, avoided the almost certain infection by a course of anti-rabies injections. Prompt measures were taken by the Veterinary Department, a District Veterinary Officer was posted to Arua and all the dogs in the township vaccinated, and a concerted drive was made to destroy jackals and stray dogs.

There were also reports of rabies of dogs in the Eastern Province, especially in Bukedi and Bugisu districts, but no human cases were reported.

VENEREAL DISEASE

The standard treatment of both syphilis and gonorrhoea remains penicillin aluminium monostearate (P.A.M.). Although highly successful in the treatment of the individual case it has unfortunately had little effect in reducing the incidence of the disease—such improvement can only come with an alteration in moral standards. The following are the figures for the last four years: —

	Gonorrhoea (includes cases attending with complications)		Syphilis (all forms)	
	In-patient	Out-patient	In-patient	Out-patient
1952	2,148	23,386	1,904	29,760
1953	2,800	16,659	965	22,725
1954	1,838	17,550	725	19,365
1955	1,562	20,083	457	19,518

TUBERCULOSIS

During this year the system of referring cases of pulmonary tuberculosis from up-country hospitals to Mulago Hospital in Kampala for assessment and initiation of treatment has been continued; cases have also been returned to Mulago at three-month intervals for assessment of their progress. Two district hospitals, Jinja and Mbale, have their own-X-ray apparatus and in these hospitals cases of tuberculosis were assessed and treated without being referred to Mulago; cases from Tororo and Soroti were sent to Mbale for investigation; and only those cases where the diagnosis was in doubt or where there was some question of their suitability for treatment were sent to Mulago.

Patients treated in 1955 showed a slight increase over those treated in 1954 (615 against 551). The number of cases presenting themselves has thrown a considerable strain on the accommodation available in up-country hospitals. To help in overcoming this, money was allocated from the African Development Fund to provide special 16–20 bedded tuberculosis units at selected district hospitals. Plans for these units have been approved and building of two will begin early in the coming year: a further three are projected for the next financial year. Adequate X-ray facilities are to be provided for those hospitals which are to have new tuberculosis units. A limiting factor to the number of these units that can be opened is the shortage of trained staff to carry out the nursing duties. Every effort is being made to solve this problem.

The effect of these proposals will be to give district medical authorities a greater measure of responsibility for the assessment and treatment of the cases within each district, and, it is hoped, to create among the people of these districts an increased interest in the control of the disease.

A Tuberculosis Advisory Committee has been created with the Deputy Director of Medical Services as Chairman, and a membership of a Specialist Physician, a Specialist Surgeon and the Medical Officer (Tuberculosis). The function of the Committee is to advise the Director of Medical Services on the over-all policy of tuberculosis control in the Protectorate. Among more detailed matters on which it has deliberated are the plans of the tuberculosis units and X-ray blocks; the preparation of a syllabus of training in tuberculosis nursing for Medical Assistants; the types of tuberculin and B.C.G. vaccines to be used and the methods of using them; the type of apparatus for pneumo-peritoneum best suited for use in up-country hospitals; and the groups of population to whom B.C.G. vaccination should be offered.

A Medical Officer who had been making a study of tuberculosis at home and on the Continent returned to this country and in November took up his duties as Medical Officer (Tuberculosis). These duties are, as stated in the last report, to co-ordinate the diagnosis and treatment of tuberculosis in all up-country stations and to supervise schemes of tuberculosis control. To the end of the year his time was spent visiting district hospitals, and in talks with Medical Officers and administrators to obtain at first hand a knowledge of the local problems of tuberculosis. In the coming year his main task, apart from those detailed above, will be to obtain, by means of tuberculin surveys information on the basic nature of the response to tuberculin in the Uganda African, and the pattern of sensitivity in different parts of the Protectorate. This information is a necessary prerequisite for the preparation of detailed plans for schemes of control of this disease.

The Medical Research Council trials, conducted in Mulago Hospital, on the comparison of regimes of Streptomycin and Isoniazid, and P.A.S. and Isoniazid, in the treatment of acute bilateral pulmonary tuberculosis, were completed during the year. Sixty-five patients were treated, either with Streptomycin 1 g + Isoniazid 200 mgm daily (33 patients) or P.A.S. 20 g + Isoniazid 200 mgm daily (32 patients) for 12 weeks, the regimes being allocated at random. The majority of patients in each series continued on the same combination for a further 12 weeks. Collapse therapy was administered to only two patients during this period. At the end of 12 weeks the Streptomycin/Isoniazid combination showed itself slightly superior to P.A.S./Isoniazid; at the end of 24 weeks the difference was smaller. Five patients out of the sixty-five died while under treatment during the trial. The important point which emerged from this trial was that an oral regime of treatment is both powerful and valuable against the acute bilateral form of the disease so commonly found in the African; and offers possibilities for a cheap and effective method of out-patient treatment of this disease in the future.

LEPROSY

Surveys of all the population in certain limited areas have continued and much useful information has been compiled. All but two of the fifteen districts in the country have been covered by such surveys and the results have given incidence values of from 0 to 4%. In the Eastern Province the incidence is about 2·5%; lepromatous leprosy is seen in approximately 5% of all infected cases, but there are wide variations. In the Western Province in a district with similar incidence the proportion of lepromatous cases is nearer 25%.

Twenty per cent of all patients seen have been under 15 years of age and 27% are under 20, thus 73% passed safely through childhood and adolescence before manifesting signs of the disease.

Generally the principle has been accepted that all lepromatous cases and all infected children should live in leprosaria or treatment villages, whilst tuberculoid cases stay in villages or attend as out-patients according to the distance they have to travel.

Progress in the establishment of Treatment Villages has continued in most districts. Forty are in operation; many also provide for out-patients.

The number of leprosy cases in Uganda is about 60,000 of whom 20% can now obtain treatment. This compares with 4% in 1951. The training of leprosy dressers and orderlies to assist District Medical Officers has been organised at two of the larger leprosaria which are run by missions.

African Local Governments have contributed considerable amounts to the cost of the building of Treatment Villages.

D. HEALTH EDUCATION

Offices and workrooms of the new Health Education section at Medical Headquarters were opened in May. They include a well equipped dark-room, a room for model making and poster printing and a committee room where cine-films can be projected.

Most of the apparatus promised by U.N.I.C.E.F. arrived during the year. This included a silk screen apparatus for making posters, cine and still projectors, together with portable petrol generators for use in the field.

As mentioned elsewhere this branch of the work suffered a severe set-back with the death of the Senior Medical Officer in charge of the unit, in March. So far it has not been possible to post another officer to his place.

The unit continued to give assistance to District Medical Officers, the Community Development Department, the Red Cross etc., by the distribution of health posters and circulation of films. Some 20 scripts were prepared for broadcasting on health subjects usually in dialogue form. In co-operation with the Red Cross a coloured film was taken portraying the activities of the Blood Transfusion Service. Extra copies are being obtained and these will be used in various parts of the country to encourage blood donors to come forward.

Officers in headquarters continued to give lectures to the various courses held at the Community Development Training Centre, Nsamizi.

The long awaited booklet on "Village Hygiene" had reached the final stages of preparation for publication by the end of the year. Similar progress had been made with a booklet by Dr. Welbourn to be entitled "Health in the Home". This will be a revised and enlarged version of two previous booklets—"How you should feed your Child" by Welbourn, and "Health for African Women" by Threadgold. Both these booklets will be published by the East African Literature Bureau.

Some African Local Governments have financed the translation of booklets on health subjects into the local vernacular. Films taken by district teams of such subjects as county shows and leprosy work have proved of value in interesting others. Methods of health education for use in hospitals and rural areas are now included in the curricula of training for Medical Assistants, Midwives and Nurses and Assistant Health Inspectors.

In all districts two or more county shows have become a regular annual event. These are used to bring all aspects of the work of the Department before the general public in rural areas and include special demonstrations on housing and any disease which is of special local concern.

Other districts have followed the example of Busoga in holding Mutalla (village) competitions, a shield and prize being awarded to the Mutalla with the highest score. Marks are given by members of the district team for good houses, latrines, and clean compounds as well as for agricultural and veterinary activities.

For some years the main themes in health education followed by health teams working in rural areas have concerned housing, latrines and water supplies. Several districts are now showing increasing interest in child care. Referring to local experiences several officers have stressed that more solid progress is made by concentrating on individual homes and the people in them rather than by holding mass meetings and aiming their propaganda at the community as a whole. Attempts to introduce health teaching at dispensaries have been hampered by the shortage of staff and the large numbers requiring medical attention. References are made elsewhere to the work of child welfare clinics at centres which can be attended regularly by Nursing Sisters.

The Red Cross continue to do valuable work through their Junior Links. This organisation and women's clubs of the Community Development Department, are showing increasing interest in health work.

With a view to ascertaining the actual needs of the people a Medical Officer concentrated his activities on a single county in Busoga for some months. In the course of his work he made a detailed study of some 300 persons and the houses they lived in.

The Medical Officer of Health, Kampala, refers to the value of two Health Visitors employed by the municipality. They assist with child welfare clinics which are well attended by all races. There have been repeated requests from the residents for an extension of health visiting services. During the year 1,044 home visits were made. This figure would have been higher had not one health visitor been on leave for part of the year.

E. MATERNAL AND INFANT WELFARE

MATERNITY SERVICES

Maternity work at hospitals and rural centres belonging to Government and missions is summarized in Table XIII below. Figures for mission maternity units may be too low as not all centres have submitted returns.

TABLE XIII

Summary of Maternity Services

	Government	Mission	Total
UNITS	38	36	74
Maternity beds ..	576	622	1,198
Ante-natal patients ..	76,152	30,464	106,616
Ante-natal, total attendances	190,282	86,507	276,789
Abortions	1,324	590	1,914
Live births	15,316	8,185	23,501
Stillbirths	1,135	390	1,525
Infant deaths	398	232	630
Maternal deaths ..	216	55	271

Maternity services continue to be very popular throughout the Protectorate. Unfortunately it has often been found difficult to obtain sufficient Midwives to maintain existing units and on this account two have had to be temporarily closed. Midwives at rural units are often single handed and have to remain continuously on call. At one centre a single midwife delivered more than fifty women in one month and at another unit with ten beds two midwives conducted 556 deliveries with only one maternal death. Two infants only died during the first week.

At Mulago Hospital the Maternity Section was re-organised to operate as a separate unit from the rest of the hospital. It was possible to furnish one room as a sitting-room for students whilst waiting in the ward to watch their cases. This has proved much more satisfactory than waiting whilst messages are sent to the students' quarters.

Further reference to the maternity work at Mulago is recorded in the report on the Department of Obstetrics and Gynæcology.

The medical staff are convinced that "native" medicine continues to be an important cause of abnormal uterine action. Research on this subject is being conducted jointly with the Physiology Department.

CHILD WELFARE WORK

It is impossible for a single Sister in charge of a district hospital and rural dispensaries, to give sufficient personal attention to child welfare clinics. Fortunately the staff position improved slightly during the year so that it was possible in three or four districts for an extra Sister to concentrate on maternity and child welfare work. Three of these Sisters were also Health Visitors.

It is only natural in the early stages that the majority of new cases at these clinics are sick children but where a Sister could attend regularly it was possible to introduce real welfare work. Special attention has been given to weaning difficulties. This has included explanations regarding the most suitable diet in each area and practical demonstrations of the methods of preparing such dishes as bean soup. The use of dried milk has also been demonstrated. At many units it is available for sale at cost price.

In Mengo District, where a medical officer is employed primarily for child welfare work, the activities at the chain of centres around the outskirts of Kampala has continued to increase. The number of new cases per year has remained fairly constant but there has been a real increase in re-attendances. In 1955 new cases amounted to 1,415 and re-attendances to 8,058. Seventy-three families have been attending regularly since 1950 and many others since 1951 and 1953. A few children have continued to come back for weighing after entering school.

A departmental van has been made available for the work throughout the year. This has made it possible to increase the scope of work by allowing nurses to attend different units on the same day and to visit some families in their homes.

In association with her child welfare work the medical officer has given courses of lectures to Red Cross classes, with a view to encouraging mothers to obtain the Red Cross Child Welfare Certificate. During the year 100 attended and thirty-seven obtained certificates.

All of these clinics during 1955 were held at non-medical centres such as women's clubs, Nsambya Police Lines and Makerere College. Fit children should have made up most of the attendances as only limited facilities for medical treatment are available. Nevertheless routine examinations of 1,330 children showed that 21% had malarial parasites in the blood, 14% had enlarged spleens and 11% had a raised temperature. As an experiment children at two units were given daraprim half a tablet weekly. This was successful in reducing the numbers with positive blood films to 5%. Similarly those with enlarged spleens fell to 5%. The incidence of malaria at the Mengo clinics has been lower during the past three years (1953–1955) than during the period 1950–1952. It is thought probable that a large number of children are being given anti-malarial drugs by their parents as sales to Africans are known to be increasing in the shops. It is also true that with rising standards of living more young babies spend the evening and night in a cot covered with a net.

The minimum weights and lengths of Baganda children attending clinics have shown a slight but steady increase at all ages since 1952. The difference is most marked in children over one year of age. The results are being subjected to statistical analysis.

Another change which has taken place in families attending these clinics over the last few years is a great increase in the consumption of dried milks. Although supplementary feeds are most valuable when given properly it is unfortunate that in many cases mothers give such feeds on their own initiative without advice from clinics, to children who do not need them. It is thought that the increase in commercial advertising is an important factor in such practices. Bottle feeding may also have a certain prestige value owing to the mistaken idea that more advanced people prefer to rear their babies in this way.

At a rural clinic in Busoga the medical officer who lives nearby has attempted throughout the year to maintain detailed records of all children born in a defined area around the dispensary. Such recording should be of considerable help in increasing our knowledge of the normal development of African children and when sufficient numbers have been observed it will be possible to make a useful estimate of the infant mortality rate.

F. School Health

Although it has not been possible to maintain routine examinations of school children in any district, special examinations are made from time to time and children are encouraged to attend hospital for assessment of their health when requested to do so by teachers. The majority of aided schools are visited once a year by officers of the Health Department. On these occasions assistance may be given to teachers in following the hygiene syllabus of the Education Department and attention is drawn to sanitary defects.

Increasing concern is being felt about the large numbers of school children who receive no mid-day meal. Apart from the impossibility of satisfactory growth taking place if a child has only one meal a day, teachers complain that the children become lacking in energy during the afternoons. Apart from the difficulty of finding the food few schools have any cooking facilities. An interesting experiment to solve the problem is being conducted by the M.R.C. Nutrition Unit, Mulago. A balanced meal has been prepared from local foodstuffs in the form of large biscuits. These are proving most popular with children at the schools selected for the experiment. The possibility of manufacturing them on a large scale and at a reasonable price is being explored with possible assistance from U.N.I.C.E.F.

G. Environmental Hygiene

(1) Housing and Town Planning

Progress in the development of the larger towns continues. Town planning schemes have been introduced at Mbale, Entebbe, Masaka, Fort Portal, Mbarara, Hoima and Kawembe.

In the majority of the larger towns multi-storied buildings are today the rule rather than the exception.

The approval of 209 plans for Mbale township indicates the rate of the development which is taking place. In Masaka township 86 new buildings were completed and occupied, and a further 60 plots leased during the year.

Continuous frontal elevation of trading premises in main streets has been advocated in most townships and the closing and paving of the unsatisfactory and insanitary access lanes progresses.

Surveys have taken place in a number of centres to provide for grade II and grade III residential areas as permitted by the amended Building Rules.

A committee was formed during the year to consider ways and means of constituting a Local Authority to control the Kibuga in the Kampala peri-urban area.

(2) Water Supplies

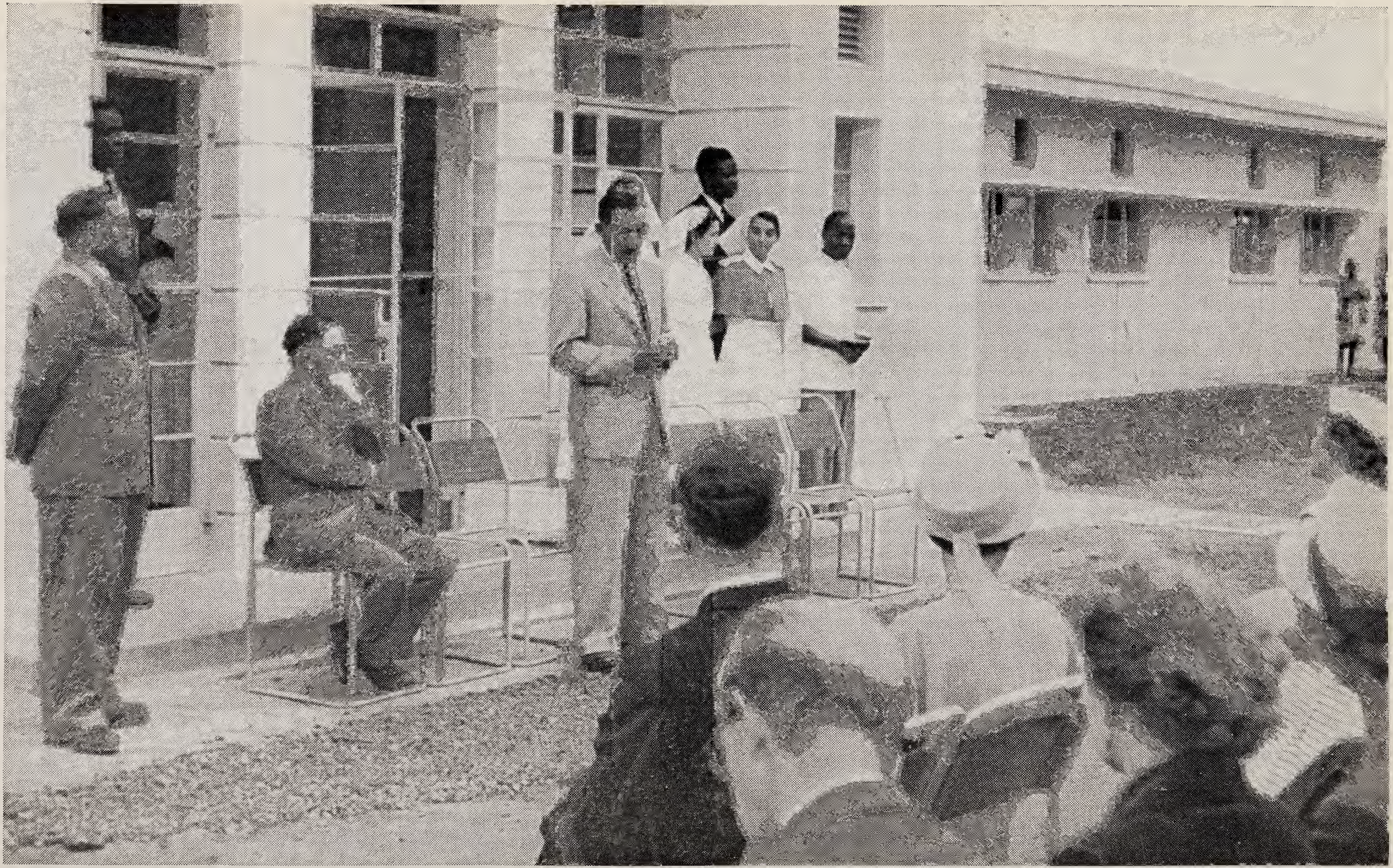
A new 4-million gallon water reservoir was completed and put into use in Kampala where it is stated that the average daily water consumption is 3,000,000 gallons.

Extensions and improvements of water supplies are in progress in the following townships: —

Mubende, Mbale, Tororo, Soroti, Serere, Entebbe, Kitgum, Moroto, Lira, Ngora, Kumi and Kabale.

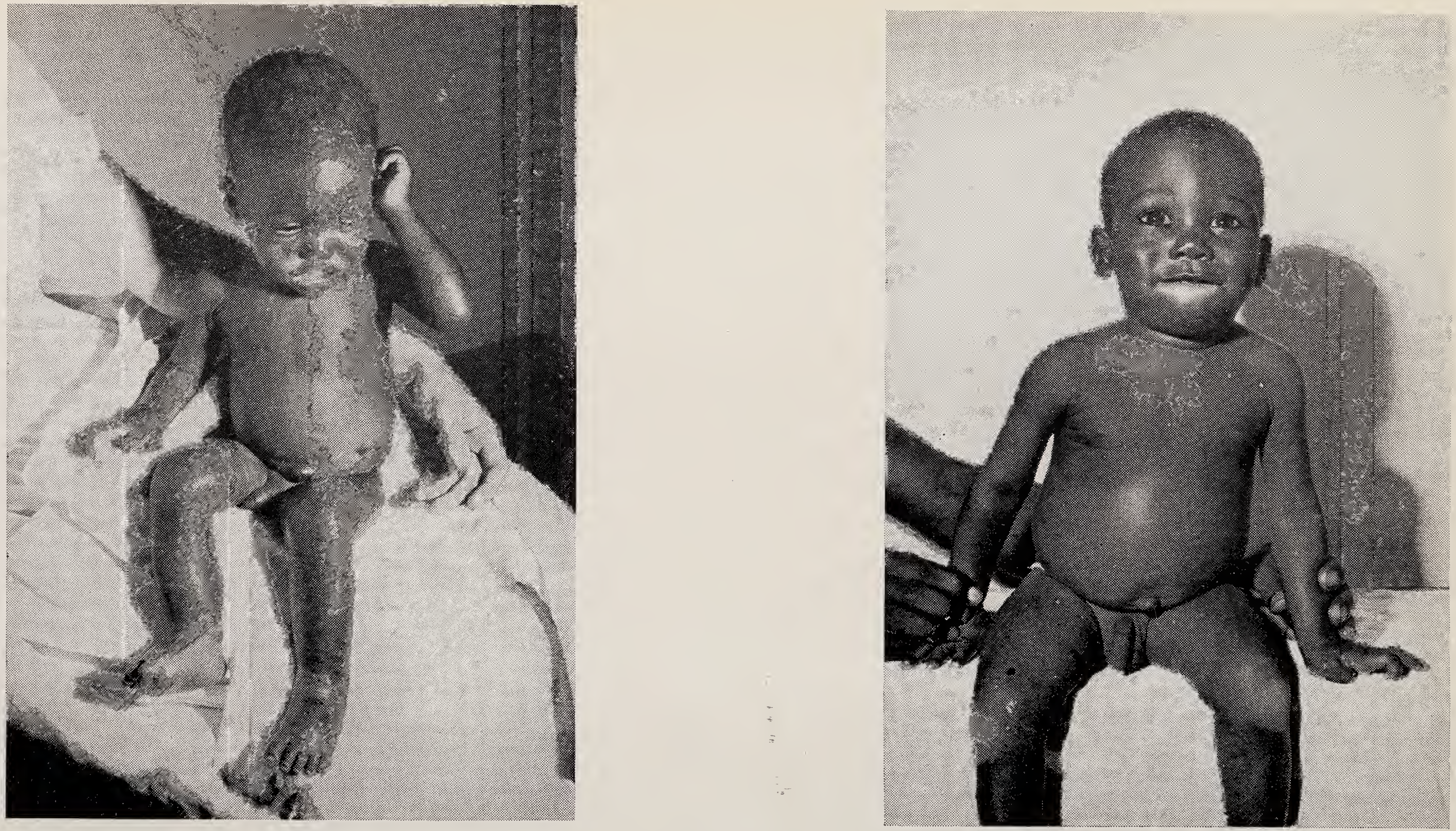
The Committee on Medical and Health Services

Captain H. M. Naylor, O.B.E., Mr. W. J. Marquand (*Secretary*), Mrs. F. Lubega, Dr. S. J. Scurlock, O.B.E., Dr. A. C. Frazer (*Chairman*), Dr. I. K. Majugo, Dr. Cicely D. Williams, Mr. A. G. Mehta, Professor H. J. Croot [*Photograph by Department of Information*]



Dr. E. A. Trim, O.B.E., Director of Medical Services, opening the new out-patient unit at Masaka Hospital [*Photograph by Mr. A. Hilton*]

Pupil midwives receiving instruction at the Training Centre, Gulu [*Photograph by Department of Information*]



Kwashiorkor

On admission before treatment

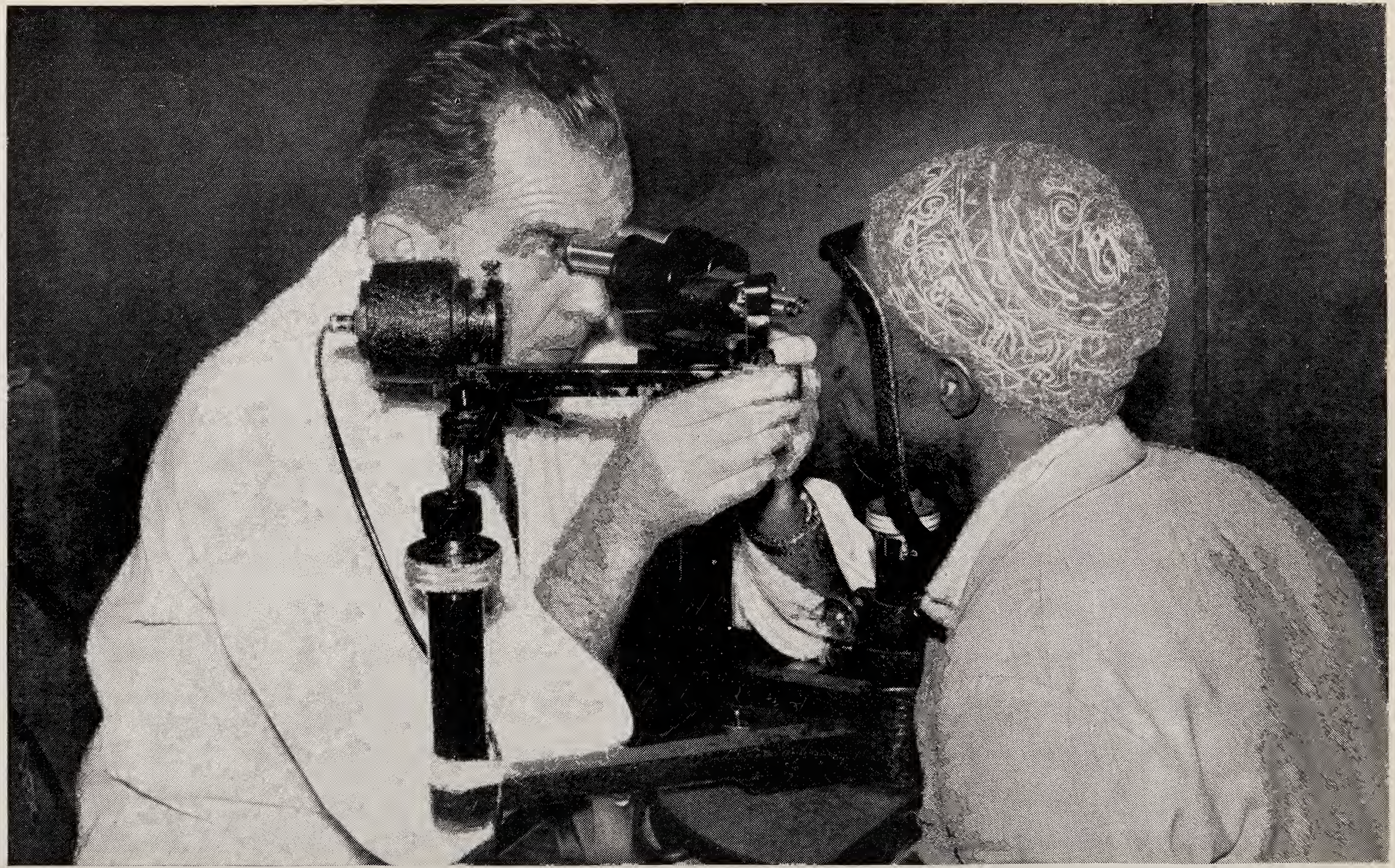
After nine weeks treatment

(Infantile Malnutrition Unit, Kampala) [*Photographs by Infantile Malnutrition Unit, Kampala*]

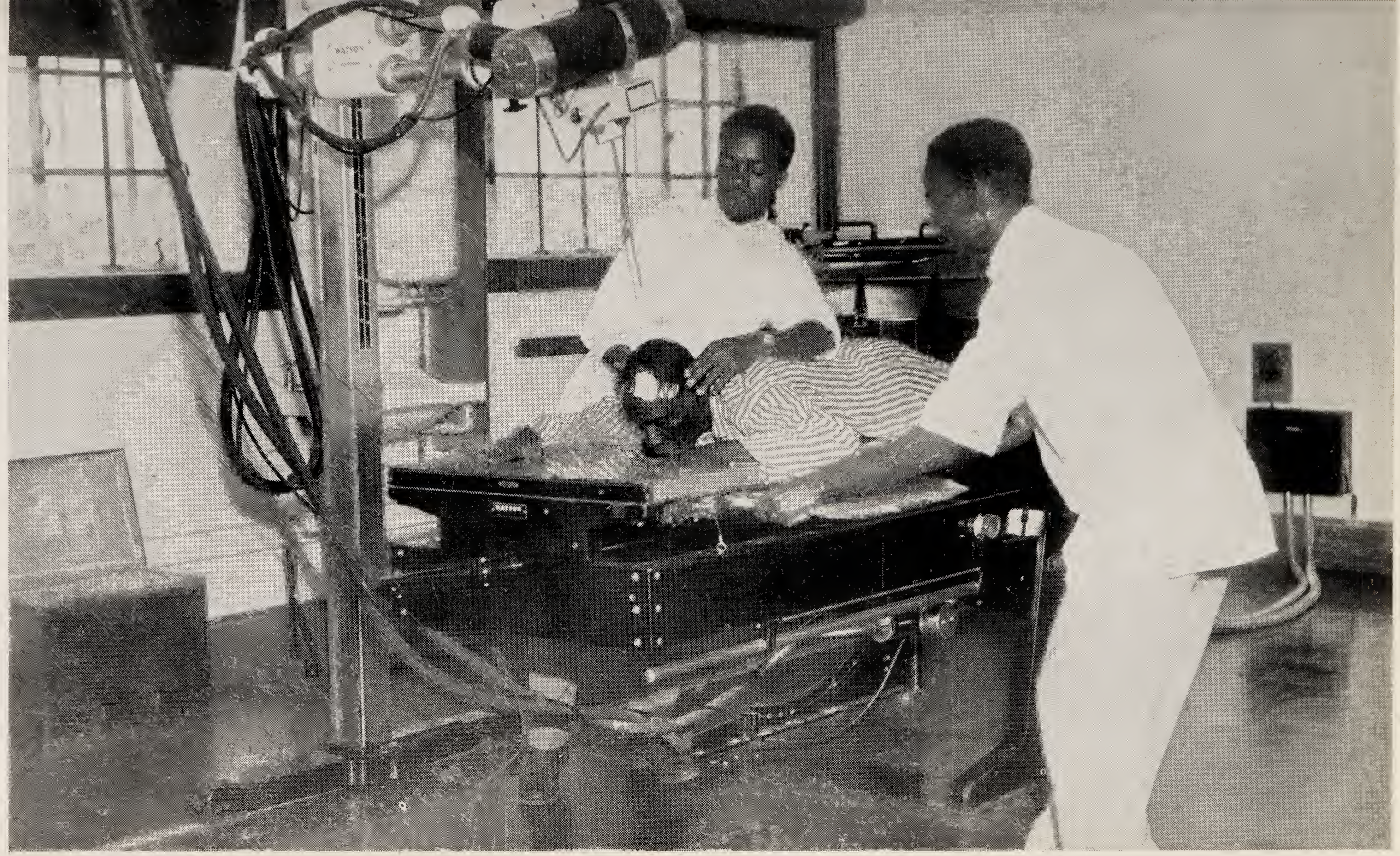
Gesell Tests

Psycho-motor development of children being tested

(Infantile Malnutrition Unit, Kampala) [*Photographs by Infantile Malnutrition Unit, Kampala*]



Eye Clinic, Jinja Hospital [*Photograph by Entomological Section, Medical Department*]



Assistant Radiographers at work, Mulago Hospital [*Photograph by Department of Information*]

Community instruction in mosquito control [*Photograph by Entomological Section, Medical Department*]

During the year 248 new boreholes have been drilled, 214 of which have proved successful. Spring protection in the rural areas continues and in the Western Province some 450 were constructed in permanent material. In Kabale and Ankole Districts a popular improvement has been made by diverting the overflow of water to clothes washing troughs.

(3) *Food Hygiene*

MEAT

Meat inspection is carried out in all the major centres, mainly by the officers of the Veterinary Department. Increased supplies of carcass meat are being imported into the Protectorate from Kenya. African Local Governments are taking more interest in the construction of rural slaughtering slabs and butchers' shops which are now built in many centres.

MILK

Increased supplies of pasteurized milk are being imported from Kenya and is bottled in the main towns and distributed. The Medical Officer of Health, Kampala, estimates that some 2,670 gallons of this milk are received and sold daily in the municipality and that local vendors supply a further 1,500 gallons of untreated milk. A scheme is under consideration for the introduction of pasteurized milk in tetrapak cartons, direct from the milk depots in Kenya.

(4) *Hotels*

Considerable improvements to existing hotels have been effected during the year. Hotel Rules have been drawn up and were still under consideration at the end of 1955. The Hotels Board is to be reconstituted in 1956.

EATING HOUSES

A number of unsatisfactory premises have been closed down during the year. In most of the main centres new buildings have been designed and constructed specifically for use as restaurants. The old idea of converting existing premises has been discouraged.

(5) *Urban Sanitation*

SEWERAGE AND SEWAGE DISPOSAL

The Jinja scheme neared completion at the end of the year. The only form of treatment intended at this stage is screening and maceration prior to discharge to the Nile below the Owen Falls Dam. Work commenced on the Mbale scheme during the latter part of the year.

Plans for schemes at Masaka, Soroti, Mbarara, Fort Portal and Kabale are being drawn up.

D.D.T., B.H.C. and in the case of Jinja township, dieldrin are being used for mosquito and fly control.

(6) Rural Sanitation

Departmental policy during the year under review was for health staff to work in concentrated areas of duty. Groups of 50 houses were selected in various areas in consultation with the local chiefs. An Assistant Health Inspector with one or two Hygiene Orderlies worked in the area for periods varying from six to nine months. The importance of better housing including lighting and ventilation, provision of kitchens, bathrooms and latrines was stressed.

Outstanding success was achieved in the Acholi District where the people have the advantage that a considerable number are, or have been, members of the King's African Rifles or the Uganda Police Force and as such have been trained in camps where strict observance of the rules governing hygiene and sanitation are in force. Some of the interior and exterior plastering of walls in their houses surpassed the finish of many buildings constructed under the provision of the Building Rules, 1951.

In the Kigezi District the Local Government has a system whereby cultivators wishing to improve their houses can purchase corrugated galvanised iron sheets at cost prices plus freight charges.

H. HEALTH AND WELFARE OF EMPLOYED PERSONS

There have been no major industrial developments in the year under review. The constructional work on the Jinja Dam was virtually completed and the bulk of the labour force was disbanded towards the end of the year. The new textile factory at Jinja did not operate during the year, but the constructional work was nearing completion. Kilembe Mines Limited increased their numbers of employees considerably and much constructional work has been taking place both at Kilembe and at Jinja, where a copper smelter is being erected.

A total of 300,000 persons were recorded as being in employment during the year. This figure is obtained from a census compiled from employers who employ more than five persons, and includes an estimate of the number in domestic service and casual employment.

The assessment of the health of employed persons during the year was confined to an analysis of the Returns of Sickness and Death sent in by approximately 27 employers covering 41,892 employees. These returns come from a variety of sources, at the best from hospitals staffed with Medical Officers and Nursing Sisters to one-roomed dispensaries staffed by untrained medical orderlies of doubtful experience. The analysis of these returns show that there was little, if any change in the pattern of disease from the previous years and there were no major outbreaks of epidemic diseases amongst employed persons.

An analysis of the returns is given in Table XIV.

TABLE XIV

Table Showing Number of Malaria, Respiratory Diseases, Tropical Ulcer and Injury Cases and Daily Sick Rates per Thousand with the Total Number of New Cases of all Kinds of Sickness and Re-attendances

	Estimated Number of Employees	Average Number Daily in Sample	Malaria		Respiratory Disease		Ulcer		Injury		Total New Cases		Total Re-attendances		GRAND TOTAL	
			Cases	DSR per 1,000	Cases	DSR per 1,000	Cases	DSR per 1,000	Cases	DSR per 1,000	Cases	DSR per 1,000	Cases	DSR per 1,000	Cases	DSR per 1,000
AGRICULTURE—																
Sugar	—	19,995	26,930	3·74	7,246	1·00	1,930	0·26	9,456	1·31	64,751	8·99	59,744	8·29	124,495	17·29
Tea..	—	5,215	5,599	2·98	4,843	2·57	1,568	0·83	4,590	2·44	27,122	14·43	29,223	15·55	56,345	29·99
Coffee	—	3,404	5,358	4·75	1,361	1·20	1,220	1·08	1,439	1·27	15,760	13·97	13,741	12·18	29,501	26·16
Sisal	—	711	460	1·79	343	1·33	163	0·63	523	2·05	2,941	11·48	4,981	19·44	7,922	30·92
Cotton	—	313	108	1·10	174	1·70	29	0·30	129	1·36	790	8·38	1,100	11·68	1,890	20·06
TOTAL ..	46,908	29,638	38,455	3·64	13,967	1·32	4,910	0·46	16,137	1·52	111,364	10·55	108,789	10·30	220,153	20·85
MINING	6,703	3,099	2,135	1·96	1,374	1·26	861	0·79	2,349	2·16	12,128	11·17	22,999	21·19	35,127	32·37
CONSTRUCTION	40,482	4,765	7,620	6·08	1,797	1·43	765	0·61	3,789	3·49	19,266	15·38	18,595	14·85	37,861	30·24
MANUFACTURING—																
Tobacco	—	3,100	858	1·78	1,835	3·80	615	1·27	1,692	3·51	11,815	24·52	6,751	14·01	18,566	38·53
Cement	—	550	324	3·92	1,139	13·95	231	2·81	746	9·04	3,965	48·06	1,911	23·16	5,876	71·22
Sawmills	—	425	204	1·33	317	2·07	345	2·25	277	1·80	2,916	19·04	1,934	12·63	4,850	31·67
Fish— Packing	—	315	462	4·07	218	1·91	19	0·10	360	3·16	1,444	12·71	2,078	18·29	3,522	31·00
TOTAL ..	24,518	4,390	1,848	2·22	3,509	4·22	1,210	1·45	3,075	3·69	20,140	24·23	12,674	15·25	32,814	39·49
GRAND TOTAL ..	118,611	41,892	50,058	3·64	20,647	1·50	7,746	0·56	25,350	1·84	162,898	11·87	163,057	11·88	325,955	23·75
ESTIMATED TOTAL OF EMPLOYEES ..	300,000															

DSR = Daily Sick Rate.

Malaria continues to be the greatest cause of morbidity amongst employed persons and although the standards of diagnosis of the disease are low, few being supported by an examination of the blood, there are far more cases occurring than there need be. In certain instances a high incidence of malaria is due to the fact that men are employed in constructional work along roads and railways which pass through highly endemic areas. Many employers attempt to reduce the incidence of malaria by the administration of prophylactic drugs. This often proves to be beneficial among the smaller groups of employees but experience shows that where 500 or more are employed the good effect is reduced. This is because in the larger groups of employees there is insufficient supervision of the administration of the drugs. At one major industrial concern where a hospital with full medical facilities is provided, reliance is largely placed on immediate treatment of cases of malaria rather than the use of prophylactics. This system undoubtedly is satisfactory amongst immune or semi-immune people and in this case a one-dose treatment is instituted which is both more satisfactory and more economical than the use of prophylactics.

Respiratory disease of a minor character is also responsible for a considerable amount of sickness. Tea estates in the wetter parts of the territory report a large number of such cases. This may be due to the rapid changes of climate or possibly the fact that the employees frequently get their clothes wet during the course of their employment. On some estates fireplaces are installed in the houses and smoke may be a contributory cause. There is however no evidence that the respiratory disease which is reported is of a serious nature.

Apart from one case of anthrax reported from a tannery, there has been no recorded case of an industrial disease under the Workmen's Compensation Ordinance. The number of diseases notifiable under the Workmen's Compensation Ordinance was increased during the year by the Workmen's Compensation (Amendment) Ordinance. There is a number of occupations which can be expected to cause trouble including Benzol poisoning in tyre retreading factories and lead poisoning from the use of lead finishing paints and battery filling.

A silicosis survey amongst miners in the Western Province was begun during the year. Ideally, in such a survey all underground workers of a certain length of experience should be X-rayed. This however is not possible owing to the limited number of X-ray units. It was therefore decided that an attempt should be made to select miners for radiographic examination by studying the results of a series of examinations. Approximately 350 miners were examined and these will be followed up. Any who show a deterioration in health will be radiographed if there is any indication that chest disease may be involved. In addition to examination of miners, some examinations were carried out in gombololas where it was known that people were accustomed to rely on mining for their livelihood. In one of these a number of suspected cases of silicosis were found occurring in old men who had worked in the mines in the days of dry drilling. The physical state of these men however, was such that they were not capable of standing the long journey to Kampala for X-ray examination. It is hoped however, that when the X-ray service is extended to Ankole and Kigezi Districts that this will be possible.

The policy of persuading employers to provide permanent accommodation for their labour has been continued with success. In the last three years over 90 employers have provided such accommodation and there are now few of the big employers who have not done so.

The standard of sanitation of housing estates provided for labour varies all over the country.

The working conditions in factories generally continues to be unsatisfactory. There are some factories of the highest standards where the workrooms are pleasant, well lit and ventilated and where full facilities for the employees are provided. There are far too many factories however, where men are asked to work in dark, dirty rooms under cramped conditions and where ventilation is virtually non-existent. The re-habilitation of ginneries over the last few years has resulted in great improvements, due to the efforts of the Factories Inspectorate. The difference between a new ginnery and one of the old type is remarkable. Dust hazards occur in the cotton and cement industries, sisal works and coffee factories. So far, dust counts have not been carried out but it is hoped that apparatus will soon be available to enable this to be done, as the dust in some of these industries is responsible at the least for offensive working conditions.

The migration of labour from the neighbouring territories in the south west and West Nile area has been maintained and the standard of health of the migrant continues to be reasonably good. There have been no outbreaks of disease amongst the migrants and there has been no indication that they were responsible for introducing disease into Uganda in 1955.

The repatriation of chronic sick to Ruanda Urundi which is supervised by the Labour Department has continued and during the year 24 patients were repatriated. In addition some 40 patients from the Mulago Mental Hospital have been returned to Ruanda Urundi.

I. International and Port Hygiene

Of the quarantinable diseases covered by the International Sanitary Regulations, there were 67 cases of smallpox notified with one death. The majority of cases occurred in Masaka and Ankole Districts. Both of these were declared "local infected areas".

AIR SERVICES

Out of the a total of 2,129 aircraft which landed at Entebbe Airport during the year 1,512 were sprayed with insecticide. It was not possible to station an officer of the Health Department at the airport to examine yellow fever and smallpox international certificates. This work was carried out by the staff of East African Airways, reference being made to the Medical Officer of Health, Entebbe, when necessary.

The total rainfall for the year in Entebbe was 64·96″. Forty-seven thousand, nine hundred and fifty-four inspections were made in the township and area around the airport for *aedes* larva. The *aedes* index averaged ·23 for the year.

J. HEALTH OF PRISONERS

The average number of prisoners continues to rise:—

1953	3,476
1954	4,071
1955	4,482

Figures regarding deaths and sickness are given in Table XV below:—

TABLE XV

Health Rates for Prisoners

	1950	1951	1952	1953	1954	1955
Death rates per 1,000 ..	10.1	12.3	7.1	7.8	7.1	6.0
Percentage on sick list ..	1.3	1.6	2.4	2.3	1.5	1.4
Hospital admissions per 1,000	507	498	439	486	378	450

At the principal prison at Luzira near Kampala there was a daily average of 1,898 prisoners. Thirty-seven cases of typhoid were reported—the outbreak started in June with 17 cases. In addition to other measures all the prisoners received injections of TAB and this has been continued for all new admissions. There were eight cases of pulmonary tuberculosis with one death. Isolation was provided in suitable quarters and treatment was supervised by the Specialist at Mulago.

The prisoners include 43 lepers who were isolated in a separate building. Prisoners with leprosy in other districts are usually transferred to Luzira where they are under the care of the Government Specialist Leprologist. The prisoners benefit by regular treatment and during the year ten of them were pronounced completely cured.

Prisoners continued to receive a loading dose of Vitamins A and D on admission. No signs of deficiency disease were detected during the year.

Work started on the installation of waterborne sanitation in Luzira Prison towards the end of the year.

At other Protectorate gaols the health record has been good. Diets and feeding of prisoners is supervised by Government Medical Officers. Weight records of all prisoners are maintained.

Twenty-eight deaths in prison occurred during the year from the following reported causes:—

Pulmonary tuberculosis	1
Malignant disease of the liver	1
Typhoid fever	2
Encephalitis	1
Epilepsy	1
Pneumococcal meningitis	2
General paralysis of the insane	2
Cerebral malaria	2
Cerebral syphilis	1
Suicide	2
Septicaemia	1
Strangulated inguinal hernia	1
Cardiac failure	4
Pneumonia	2
Fracture with other injuries	1
Ill-defined causes	1

An improvement in the sanitary conditions of Local Government Prisons was noted in most districts but reference continued to be made to the monotony of the diet and its shortage of protein.

Mengo Gaol (Buganda Government) continued to cause anxiety to the Health Department on account of overcrowding and various sanitary defects. One death from cerebro-spinal meningitis occurred at the beginning of the year. The authorities are hopeful that the present building will be replaced by a new prison at Kigo. Towards the end of the year a start was made on levelling the site.

IV.—CURATIVE SERVICES

A. Hospitals

MULAGO HOSPITAL, KAMPALA

With 650 beds this is the largest hospital in the Protectorate. In addition to its functions as a fully-staffed general hospital it is the teaching hospital for Makerere College Medical School. There is a large training school for nurses and smaller ones for midwives and dispensers. Consultants and specialists are drawn from the staff of the Medical School and from the Uganda Medical Service.

In the absence of a sufficient number of newly qualified local graduates it is necessary to recruit house-officers from overseas. Recognition of posts by certain universities and examining bodies in the United Kingdom for the pre-registration year has enabled all such posts to be filled.

The need for highest standards possible for a teaching hospital results to a certain degree in curtailment of services to the provinces in order to ensure that Mulago is adequately staffed. Leaves, sickness, deaths and post-graduate studies overseas, together with difficulties concerning recruitment have made it no easy task to meet the needs of this institution.

MEDICAL DIVISION

The Report from this Division contains details of research undertaken. Chloroquin in the treatment of children with malaria was investigated ; a study was made of the occasional toxic effects of mepacrine injections in children, and a trial was carried out on intramuscular injections of an iron dextran compound "Imferon" in iron-deficiency anaemia. Research was continued on the relation between severe malaria and the sickle-cell trait in African children. Work in the Medical Research Council Infantile Research Unit has continued. A long-term study of patients with (bilateral) tuberculosis of the lung has been continued with the help of a grant from the Medical Research Council: at the end of the second year the reports prepared for publication describe the results as encouraging. A project is planned for a further chemotherapy trial designed to test the effectiveness of sulphones (D.D.S.) in preventing the emergency of resistant strains to Isoniazid. Whilst the Specialist Leprologist was undertaking surveys on unselected and complete sample groups of the population, an opportunity was taken to commence the collection of data on blood pressure in African over 30 years of age.

SURGICAL DIVISION

Extension and replanning of the operating theatres was commenced in the latter half of the year. This has necessarily restricted the number of patients who could be admitted for operation. In all, 7,805 operations were performed in the general theatres. It is interesting to note that of 164 cases of strangulated hernia operated upon, 50 required bowel resection, and that whereas reduction of volvulus was performed on 22 cases, appendicectomy for acute appendicitis was only necessary on four occasions: only one operation was performed on the gall bladder, namely cholecystectomy for cholelithiasis. Stricture of the urethra continues to feature prominently in surgical wards.

DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY

One thousand, nine hundred and twelve deliveries were conducted. This is 200 more than in 1954. Cases could only be accommodated in existing beds by reducing the period which patients remained in hospital after normal labours. Twenty-two mothers died; 17 were true maternal deaths and four were due to diseases not directly associated with the pregnancy. Nineteen cases of ruptured uterus were treated; it is probable that one of the main causes of abnormal uterine action is the use of native medicines. The increase of the work done is shown by comparison with 1949. In that year 414 gynaecological operations were performed, whereas the total in 1955 was 1,226.

WELFARE

With the valuable help of an officer of the Community Development Department and the British Red Cross Society, it has been possible to give more attention to the welfare of the patients. In particular, difficulties experienced in the repatriation of the sick have been overcome, to the mutual benefit of the patient and the hospital, which requires every empty bed that can be obtained. Welfare of African staff depends on the availability of finance and, in the absence of a welfare officer, on the time which a busy staff can spare for organisation and supervision. The nurses are fortunate in possessing a full-time European Welfare Officer who has arranged tennis, country dancing, netball, a library, various clubs, sewing classes, a choir and a dramatic society. It is somewhat disappointing to record that it is difficult to persuade the nurses to run their own recreation, and that any activity not organised and supervised personally by the Welfare Officer soon ceases. There is also a need for nurses to accept a greater sense of responsibility for the care of the juniors.

The male members of the Department have benefitted by a grant of money for the levelling of the soccer field. No staff canteen was available as a suitable building could not be found, but a male recreation club continued to function successfully.

Physiotherapy

Physiotherapy services continued under considerable difficulties. Leaves necessitated the acceptance of additional duties, and buildings and equipment will need improvement if the service is to work efficiently.

Blood Transfusion

This service is organised by the Red Cross.

European and Asian Hospital Kampala

This is the largest non-African hospital in the Protectorate and admissions are drawn from the length and breadth of the Protectorate. On numerous occasions patients have been evacuated from upcountry districts by air to Entebbe and thence by ambulance to Kampala. Consultant services are provided by specialists of the Uganda Medical Services and by Professors of the Makerere Medical School who have been appointed Honorary Consultants. Whilst no acute case has yet been refused admission it has been necessary to keep a waiting list for elective surgery and for X-ray examination. At times the bed situation has caused anxiety, especially in the maternity section when, as is inevitable, rush periods occur.

Blackwater fever is now rarely seen and is almost completely confined to Asians.

Poliomyelitis led to three deaths and to serious crippling. Cases of respiratory paralysis threw a heavy load on the nursing staff in May.

Two patients with Pink Disease have been seen.

Considerable alterations and additions are being made to the buildings. When completed additional accommodation will be available for Asian maternity cases and administration of the hospital should be made easier.

Institutions outside Kampala

Staff.—There was no change in 1955 in the number of institutions staffed by doctors.

Buildings.—During the year several hospitals were improved and extended by new buildings. At others old buildings which were no longer satisfactory have been replaced.

The hospital to benefit most was Masaka where a complete new out-patient department with X-ray room, laboratory and dispensary, and new administrative block and new operating theatre were built during the year.

A children's ward and a new operating theatre were built in Kabale and a new children's ward at Lira Hospital. A large ward was added at Fort Portal.

At Soroti a new out-patient block, an administrative block and an operating theatre were built and a new Asian ward was started. These buildings completely transformed the hospital and very greatly improved its efficiency. Minor improvements to hospital buildings were carried out at Hoima, Mityana and Jinja.

Perhaps the most important building of all was the much needed Maternity Training Centre at Gulu which was built to meet the great need for training midwives in the Northern Province where, owing to the shortage of midwives, not a single dispensary has at present a maternity ward.

A large, double-storied dispensary in Kampala was almost finished at the end of the year and will replace the most unsatisfactory old dispensary which was built many years ago. It is hoped that this dispensary will relieve the pressure on the out-patient department at Mulago.

B. Rural Medical Services

A number of dispensaries were rebuilt during the year, including three in the West Nile District. There has been very considerable improvement in the dispensaries in this district although several still remain in a primitive condition.

In Mengo District a new ward and staff quarters were built at Bukwe dispensary and new staff quarters at the Luwero dispensary. In Bunyoro District a dispensary was opened at Kikube and at Kigorobya the dispensary was rebuilt. In Toro District new buildings were added to the Kasule dispensary.

The emphasis during the year under review has been on improving or enlarging the existing dispensaries rather than building new ones. If trained ancillary staff is available it is planned to build two new dispensaries in each province next year.

African Local Governments are responsible for maintaining dispensaries in a proper state of repair, considerable difficulty has been experienced in persuading them to carry out essential work satisfactorily.

In maternity wards a vacant bed is a rarity but beds for general cases in dispensaries are usually not fully occupied. The reason is that with improvement of education and standards of living Africans are demanding modern forms of treatments: they are no longer satisfied with the attention of Medical Assistants in a dispensary but demand to go to a hospital with fully qualified staff. There is an increasing appreciation of such aids to medical work as X-rays and laboratories. In addition, food, is supplied free in Government hospital but in dispensaries patients usually have to provide their own food. Thus, the unfortunate position arises where in many districts the district hospital is grossly overcrowded, sometimes with patients lying on the floor, whilst half the beds in the dispensaries may be empty. This is especially noticeable in districts where hospital facilities are good and transport is readily available—for instance, Mengo in Buganda, where there are three mission hospitals (Rubaga, Mengo and Nsambya), the Government hospital at Mulago, and smaller rural hospitals at Bombo and Mityana.

In the more backward areas such as the West Nile District, the people do not yet demand such a high standard of treatment, transport is difficult and there are only two small hospitals (Moyo and Arua) in an area almost as large as Mengo; in consequence the dispensary beds are used far more than they are in Mengo.

The future of the dispensaries probably lies in the direction of Health Centres which have proved so successful in other parts of Africa. As communications improve and ambulance transport is provided in-patient treatment will be increasingly confined to hospitals where it will be possible to centralise specialist staff and modern diagnostic and therapeutic apparatus.

C. PATIENTS AND DISEASES TREATED

Statistics regarding medical units in Uganda and the numbers of patients treated in them are summarised in the following tables.

TABLE XVI

Summary of Units and Beds

(A) GOVERNMENT AND AFRICAN LOCAL GOVERNMENT INSTITUTIONS

UNITS	Kampala	Rest of Buganda	Eastern Province	Northern Province	Western Province	TOTAL
General Hospitals—						
European	1	1	2	—	—	4
Asian	1	2	4	1	2	10
African—						
District	1	3	4	4	4	16
Rural	—	2	1	2	1	6
Mental	1	—	—	—	—	1
Prison	—	2	—	—	—	2
Dispensaries—						
With beds	—	31	24	25	33	113
Without beds	1	6	14	18	8	47
Aid posts	—	42	12	10	34	98
Maternity Centres—						
At hospitals	3	5	6	4	5	23
At dispensaries	—	12	15	—	9	36
Solitary	—	—	1	—	—	1

TABLE XVI—*continued*

(A) GOVERNMENT AND AFRICAN LOCAL GOVERNMENT INSTITUTIONS—*continued*

BEDS	Kampala	Rest of Buganda	Eastern Province	Northern Province	Western Province	TOTAL
For Europeans	38	3	12	—	—	53
For Asians..	56	13	35	3	10	117
For Africans—						
District hospitals	620	459	715	458	374	2,626
Rural hospitals	—	109	30	116	51	306
In other units	—	355	748	173	442	1,718
For mental patients ..	426	—	—	—	—	426
For prisoners	24	45	—	—	—	69
TOTAL BEDS ..	1,164	984	1,540	750	877	5,315
General beds	538	394	617	380	288	2,217
Maternity beds	106	111	96	54	77	444
Tuberculosis beds	52	65	12	—	—	129

(B) MISSION INSTITUTIONS

	Kampala	Rest of Buganda	Eastern Province	Northern Province	Western Province	TOTAL
Hospitals	2	—	3	1	3	9
Others	1	18	15	4	3	41
BEDS						
In hospitals	376	—	117	54	137	684
In other units	12	335	244	6	—	597
TOTAL BEDS ..	388	335	361	60	137	1,281
General beds	284	68	164	24	117	657
Maternity beds	110	327	142	22	21	622

(C) BEDS MAINTAINED BY EMPLOYERS OF LABOUR

	Kampala	Rest of Buganda	Eastern Province	Northern Province	Western Province	TOTAL
In hospitals	—	130	125	—	160	415
In dispensaries	—	35	—	—	60	95

TABLE XVII

Comparative Summary of Patients

GOVERNMENT AND AFRICAN LOCAL GOVERNMENT UNITS

YEAR	HOSPITALS			DISPENSARIES	ALL UNITS
	Admitted	Died	Out-patients	Total patients	Total patients
1951	88,025	3,037	775,532	1,587,483	2,451,048
1952	80,990	2,967	744,616	1,618,472	2,444,078
1953	77,275	2,970	675,491	1,676,406	2,429,172
1954	78,332	2,373	669,655	1,698,355	2,446,342
1955	77,668	2,713	811,581	1,921,099	2,813,061

TABLE XVIII

ANALYSIS BY PROVINCE

	Buganda	Eastern Province	Northern Province	Western Province	TOTAL
IN-PATIENTS—					
Hospitals—					
Europeans	1,162	282	—	—	1,444
Asians	2,012	615	20	82	2,729
Africans	30,938	20,063	12,812	9,682	73,495
All races	34,112	20,960	12,832	9,764	77,668
Dispensaries	9,509	24,668	7,034	11,397	52,608
TOTAL ADMISSIONS	43,621	45,628	19,866	21,161	130,276
OUT-PATIENTS—					
Hospitals—					
Europeans	7,707	5,338	754	849	14,648
Asians	7,621	6,146	656	705	15,128
Africans	268,007	179,821	161,674	171,955	781,457
All races	283,335	191,305	163,084	173,509	811,233
Dispensaries	391,389	624,317	463,885	441,508	1,921,099
TOTAL OUT-PATIENTS	674,724	815,622	626,969	615,017	2,732,332
RE-ATTENDANCES—					
Hospitals	377,949	135,402	184,639	194,621	892,611
Dispensaries	361,023	464,443	480,672	398,306	1,704,444
TOTAL ATTENDANCES	1,413,696	1,415,467	1,292,280	1,207,944	5,329,387
DEATHS—					
Hospitals—					
Europeans	7	—	—	—	7
Asians	30	8	1	—	39
Africans	1,362	686	360	259	2,667
All races	1,399	694	361	259	2,713
Dispensaries	204	563	49	258	1,074
TOTAL DEATHS	1,603	1,257	410	517	3,787

NOTE.—Dispensaries include aid posts and maternity centres.

TABLE XIX

Attendances at Government Dispensaries

	New out-patients	Re-attendance	In-patients	Deaths
WESTERN PROVINCE—				
Fort Portal	172,778	134,417	1,822	50
Ankole	86,093	65,452	3,090	69
Bunyoro	80,000	69,953	718	17
Kigezi	102,637	129,484	5,767	122
TOTAL	441,508	398,306	11,397	258
EASTERN PROVINCE—				
Soroti	225,439	230,253	4,728	89
Bugisu Mbale	190,196	129,648	10,782	173
Bukedi Tororo	61,234	49,247	2,118	51
Busoga	147,448	55,295	7,040	250
TOTAL	624,317	464,443	24,668	563

Attendances at Government Dispensaries—*continued*

	New out-patients	Re-attendance	In-patients	Deaths
NORTHERN PROVINCE—				
Lango	175,124	122,865	3,373	49
Acholi	96,868	125,735	—	—
West Nile	163,697	206,532	3,084	—
Karamoja	8,047	7,540	—	—
Madi	20,149	18,000	577	—
TOTAL ..	463,885	480,672	7,034	49
BUGANDA—				
Mubende	45,993	59,395	1,132	—
Masaka	72,575	63,432	4,494	96
Mengo	272,821	238,196	3,883	108
TOTAL ..	391,389	361,023	9,509	204
GRAND TOTAL ..	1,921,099	1,704,444	52,608	1,074

D. MENTAL HOSPITAL AND MENTAL HEALTH

NURSING STAFF

There are only three European male and three female mental nurses to care for the 622 patients placed in two hospitals. Of the 223 African staff caring for patients three have passed their final examinations in mental nursing, 22 others have received some instruction.

PATIENTS: EUROPEANS—ASIANS

There is a small building outside the main compound which can accommodate two patients. These beds can only be used for co-operative patients. Fifteen Asian patients were admitted during the year.

TABLE XX

Admissions, Deaths and Discharges from Mental Hospital

YEAR	ADMISSIONS			DEATHS	DIS-CHARGES	TOTAL IN HOSPITAL AT END OF YEAR
	New	Read-missions	Total			
1950	268	27	295	77	131	477
1951	297	34	331	112	191	505
1952	307	27	334	121	222	496
1953	350	26	376	209	205	458
1954	354	47	401	80	237	546
1955	466	34	500	100	325	622

AFRICAN PATIENTS

The table above gives details of admissions. The great increase in the admission rate has thrown considerable strain on the staff. In spite of 88 more patients being discharged in 1955 than in the previous year 76 more patients were in hospital at the end of the year than in the beginning.

TREATMENTS

Apart from routine care, supervision, occupation and if necessary sedation of patients, the following specific treatments were given: —

	Total
Convulsant therapy was given to: —	
304 males and 237 females	541
Anti-syphilitic therapy was given to: —	
48 males and 12 females	60
Insulin was given to 10 males	10

Occupational Therapy (Mulago)—80 males and 20 females were usefully employed daily, growing cotton and certain root crops. Many other patients help in ward work, make mats and knit.

CRIMINAL LUNATICS

There are 75 in the hospital, eight of these were admitted during the year. Their presence limits considerably the amount of freedom which can be given to the other patients.

BUTABIKA HOSPITAL

The first buildings of the new mental hospital were entered on the 21st of April.

Male patients of good conduct were gradually transferred, and at the end of the year 112 were resident. Eighty of these have worked well on the hospital grounds.

The grounds have been transferred from a sea of builders' rubble and elephant grass to attractively laid out paths lined with shrubs and flowers.

GENERAL

There is no provision in the Mental Treatment Ordinance for voluntary patients; in any case there is only room for the treatment of severe psychosis. Nevertheless, two-thirds of these patients are discharged. This rate is as good as that recorded in the majority of mental hospitals in England. Many of those who remain in hospital are criminals, or cases of advanced general paralysis of the insane.

It has been found that the acute psychotic responds well to treatment.

E. Dental Services

During 1955 shortage of staff has prevented any extension of Dental Services. Leaves and a vacancy for six months have reduced the official establishment of five Dental Surgeons (as from July 1955) to an effective one of only three. The duty of a locum tenens at Jinja, Kampala, Entebbe and Mulago was carried out by a local practitioner.

An increasing number of Africans are no longer content with a casual extraction by an orderly for the relief of pain but expect full treatment by a Dental Surgeon—especially conservative treatment (most of which must be done by the Dental Surgeon himself), and which takes much longer time.

The combination of a punctual appointment system with a casual out-patient queue is not easy; an effective solution at Jinja has been to reserve a fixed time each day for all emergencies.

Now that Government Dental Surgeons are treating Africans at Jinja and Entebbe, and that all four Government Dental Surgeons are treating Africans when on safari, the propaganda effect previously coming only from Mulago may be much multiplied in the next few years, and would lead to a rapid increase in the demand rate amongst Africans. Moreover, it has been found at Mulago that caries incidence amongst young Baganda is three times as high as it was eight years ago. It is not yet known whether caries is still increasing in the Baganda or whether there will be a similar increase in other tribes as their dietary and other habits change.

In order to maintain maximal output with minimal staff, various improvements have been made to equipment at the four clinics. An apparatus for processing chromium-cobalt dentures has been installed at the Jinja Laboratory, and a muffle furnace at Kampala. At a time when all Dental Surgeons are booked for some weeks ahead it seems particularly regrettable that so many appointments should be broken (e.g. still 11% in Jinja), and that some new arrivals from the United Kingdom should be needing extensive treatment. Economy results from a more effective use of auxiliaries of various kinds. Thus the output at Mulago is double what it was in 1950 despite a slight reduction in staff. The output at the Kampala Dental Laboratory is treble that of 1950; the only addition to the staff of one Dental Technician is an untrained orderly to do rough cleaning of laboratory equipment.

The orthodontic treatment of European children at school in Kenya continued to be a problem in regard to planned treatment, its efficient supervision and finally payment therefor.

The up-country stations were visited, but more time is being required for these safaris. An absence of six weeks or so results in disorganisation of the home station. This difficulty was effectively met at Kampala by the part-time appointment of a local dentist when the Government Dental Surgeon was away for six weeks during school holidays.

TABLE XXI

Summary of Work Carried Out in Dental Units

	Kampala		Mulago		Jinja		Entebbe		Total	
	1954	1955	1954	1955	1954	1955	1954	1955	1954	1955
Extractions . .	927	945	9,766	10,734	340	602	1,444	378	12,477	12,659
Conservative treatment										
Scalings	379	605	1,681	2,417	210	166	1,125	161	3,395	3,349
Fillings	1,120	1,724	261	325	725	740	1,502	738	3,608	3,527
Crowns, inlays, bridges	30	8	—	2	15	13	24	6	69	29
Prostheses—										
New dentures . .	162	75	—	3	87	63	62	9	311	150
Repairs, additions, etc.	145	57	—	5	44	82	24	6	213	150
Orthodontic appliances	22	12	—	—	4	9	2	1	28	22
Surgical appliances . .	4	5	—	3	—	1	1	—	5	9
TOTAL ATTENDANCES	2,850	3,989	14,207	16,875	2,047	1,920	3,758	2,168	22,862	25,157
Africans	13	4	13,944	16,532	169	250	772	225	14,898	—
Non-African . .	2,837	3,985	263	343	1,878	1,670	2,986	1,943	7,964	—

During 1955 Dental Surgeons were absent as follows: Mulago two and a half months. Jinja and Entebbe six months. In each case Mr. Adatia acted as part-time locum tenens for some or all of the period, and his figures have been included.

F. RADIOLOGICAL SERVICES

All three African students passed the final examination of the course for Assistant Radiographers. The standard in the practical part of the examination was very satisfactory.

The establishment for fully qualified radiographers was raised from four to five in July and the extra post has been filled by a locally engaged lady radiographer.

In order to bring the return of X-ray work done into line with the practice in the United Kingdom hospitals, a record of the number of examinations (as distinct from the number of persons examined) has been recorded for the Mulago X-ray Unit. This is necessary because a number of patients have more than one examination at one time.

In the Mulago Unit 9,182 examinations were performed on 8,938 Africans patients, as compared with 7,205 examinations on 6,941 patients in 1954. This represents an increase of about 27% over the previous year. Of these patients, 494 were referred by mission hospitals (500 in 1954), and 338 from private practitioners (258 in 1954).

The main classes of examinations in African patients (with the 1954 figures in brackets) were:—

Lungs and pleura (full size films)	2,944	(3,049)
Hearts (large size films)	144	(157)
Miniature films of chests	1,724	(517)
Lower limbs	1,465	(1,163)
Upper limbs	1,049	(891)
Lumbar spine and pelvis	536	(525)
Pregnancies	166	(141)
Skulls	187	(163)
Mandibles and teeth	123	(105)

The most significant feature is the big jump in the number of chest and heart examinations carried out on the miniature films machine. Each examination on a miniature film saves about four shillings. During the year all nurses starting training at Mulago Hospital had their chests photographed on these films and arrangements were made with one large commercial firm for similar examination of all its candidates for employment.

During the year the large X-ray machine at the European and Asian Hospitals gave considerable trouble: a new machine of similar type was obtained and awaited installation at the end of the year. For some years it has been difficult to ensure that the X-ray machines of the Protectorate received adequate maintenance, but in the second half of 1955 they were twice overhauled by an X-ray engineer who visited Kampala from Nairobi.

Despite trouble with the machine, 3,321 examinations were performed on 2,995 patients at the European and Asian Hospitals. This represents an increase of just about 10% in the number of patients when compared with 1954.

There is a marked difference between the frequency with which particular examinations are requested at the two hospitals. Fifty-one per cent of Africans had examinations of the chest, but only 29% of Europeans and Asians. Similarly, examinations of the gall-bladder are 150 times more frequent at the European and Asian Hospitals as compared with Mulago.

In addition to the Kampala Units, small X-ray machines have been working continuously throughout the year at Jinja and Mbale Hospitals. At Mbale the machine has been operated by an army trained Assistant Radiographer, but at Jinja the Medical Officer has had to do this himself, pending the posting of a trained Assistant Radiographer. One thousand, two hundred and fifty-five patients of all races were examined at Mbale and another 1,182 at Jinja. The X-ray machines at these hospitals are small, and the majority of examinations were on chests and limbs.

It is doubtful if the public fully appreciate the cost of maintaining radiological services, even on the small scale which exists in Uganda, and the following examples of costs may be of interest.

During the year over Shs. 70,000 were spent on X-ray films alone. A large X-ray installation (such as that in Kampala) cost about Shs. 70,000, while fairly modest unit for an up-country hospital costs approximately Shs. 30,000 to install. Under tropical conditions these machines only have an efficient life of about twelve years at the most. A large X-ray tube, which may have to be replaced after a year's operation, cost over Shs. 5,000.

G. Pharmaceutical Services

A new large store and a store to house inflammable drugs, both in the Medical Store compound, were constructed and occupied by the middle of the year. This allowed the old store, part of which was at one time a prison, at the Entebbe Pier to be handed over to the Public Works Department for demolition.

New steel shelving arrived in the middle of the year and as the new stores were ready for occupation opportunity was taken to re-organise the whole store.

Owing to rail and dock strikes in the United Kingdom goods were taking from 12 to 15 months to arrive causing severe shortages. As a result many items had to be ordered by air in an effort to keep stations supplied with essential drugs.

A sale of all old, obsolete and useless surgical instruments—some of them dating back to the previous century—was held at the Medical Store in November. Every single item was sold, mainly by auctioning in bulk. The sale realised about Shs. 12,000.

By March the Stores, Drugs and Equipment Advisory Committee completed its task of revising all the medical forms and no further meetings of that committee took place.

Slow progress on the proposed Pharmacy and Poisons Ordinance was made. In December the "final" draft as drawn up by the Attorney General, Kenya, was being studied.

Only one safari to the Western Province was carried out by the Chief Pharmacist.

The training of Assistant Medical Storekeepers at the Medical Store continued satisfactorily. Not so satisfactory was the training of dispensers at Mulago Hospital where one pharmacist deals with the running of this large hospital and the teaching of trainees, with the result that insufficient time can be given to the instruction of learners.

Early in the year there was a large and disturbing loss of 2,000 Plim syringes. This led to several enquiries which were followed by a 100% check of all items in the store. Greater security measures were taken and officers were appointed to each section of the store and made entirely responsible for the stock under their charge. During the last three months of the year there were no losses.

The manufacturing section of the Medical Store continued its work satisfactorily. The following is a summary of preparations made:—

SUMMARY OF PREPARATIONS MANUFACTURED

		1953	1954	1956
Injections—				
Bismuth oxide	*litres*	114	333	260
Glucose	*litres*	999	2,286	1,279
Hydnocarpus oil	*litres*	767	284	19
Quinine	*litres*	134	173	168
Normal Saline	*litres*	—	2,086	1,382
Galenicals—				
Liniment	*litres*	1,584	3,155	3,762
Ointments	*kilos*	3,489	6,400	6,727
Insecticides—				
Benzyl benzoate emulsion	*litres*	307	523	261
B.H.C. spray	*litres*	144	850	1,386
D.D.T. spray	*litres*	3,328	3,643	4,258
Pyrethrum spray	*litres*	1,440	1,405	1,980

H. AMBULANCES AND TRANSPORT

During the year departmental vehicles covered a total of just under 500,000 miles. An average utilization figure of 345 days per year per vehicle was obtained. This does not take into account time spent on routine maintenance and servicing, but only the time which any vehicle was actually off the road for major overhauls and repairs. It is considered that the increased attention now being paid to regular maintenance is enabling stations to obtain the maximum use from their vehicles. The "Handbook for Drivers" and the "Vehicle Maintenance" charts which were prepared and issued last year have proved most useful. A system of regular routine servicing and maintenance was introduced for departmental transport at Kampala, Entebbe, Masaka, Jinja and Mubende whereby these vehicles were examined and serviced once or twice a month at the departmental garage at Entebbe. This has had a most satisfactory effect in reducing repair bills.

The central garage had a busy year. Some 305 major overhauls have been undertaken together with numerous repair jobs and the complete spray-painting of 26 vehicles. This work was in addition to routine maintenance jobs and emergency repairs which were carried out at stations by the mobile workshop. Every departmental vehicle was thoroughly checked at least once during the year.

Generally speaking, the light vans have proved to be satisfactory although some of them are now showing signs of approaching the end of their useful life. This is only to be expected as they have completed nearly three years of strenuous running on all types of roads. The nine vehicles obtained during 1955 include two which were received from UNICEF and completed the transport allocation which is being made to assist the health education programme. Two Land-Rovers were procured; one was allocated to the Entomological Section and the other for the Medical Unit in Karamoja. The remaining four vehicles were allocated for use of the Nutrition Unit, child welfare clinics, the Medical Stores and the Entebbe Hospital respectively. The Entebbe vehicle was found to be necessary as a result of the increasing use of aeroplanes for the transport of patients from up-country to hospital in Kampala, through Entebbe airport.

Stores for district hospitals continued to be transported in Medical Department vehicles direct from Medical Stores in Entebbe to the unit concerned. This section of the departmental fleet suffered only one accident during the year and that was attributed to a tyre burst, causing the vehicle to overturn. Luckily only moderate damage was sustained by both vehicle and load. No persons were injured.

African Local Governments played an increasing part in the transport of patients within their own districts and at the end of the year only two districts were without ambulance vehicles provided by local resources. It is hoped that Local Government will increasingly undertake this form of service.

Table XXII

	1951	1952	1953	1954	1955
New vehicles obtained	7	4	11	14	9
Old vehicles written off	4	12	14	9	3
Average age of vehicles in years . .	—	—	7	2	3
Number of ambulances at the end of the year	23	14	10	5	6
Number of cars, vans and trucks at the end of the year	20	21	22	32	37
TOTAL number of vehicles at the end of the year	43	35	32	37	43

I. REGISTRATION OF PROFESSIONAL PERSONS

A summary of the entries in the various professional registers is given below: —

Register	Number at 31–12–54	Names added in 1955	Names removed in 1955	Number at 31–12–55
Doctors—				
Registered	223	57*	25	255
Provisionally registered	5	—	—	5
Licensed	53	4	16	41
Dentists—				
Registered	13	4	3	14
Licensed	5	—	—	5
Under permit	1	—	—	1
Pharmacists	24	6	—	30
Midwives—				
C.M.B. standard	136	24	14	146
Locally trained	700	53	2	751

* Includes 14 previously licensed.

Doctors at 31–12–55	REGISTERED				LICENSED			
	European	Asian	African	Total	European	Asian	African	Total
Government	61	11	25*	97	2	4	16	22
Other public services . .	25	2	—	27	1	2	—	3
Mission	25	1	—	26	1	—	—	1
Private	7	71	10	88	—	12	3	15
Total in Uganda	118	85	35	238	4	18	19	41
Not resident in Uganda . .	8	9	—	17	—	—	—	—
TOTAL . .				225				41

* Five others were provisionally registered.

J. SPECIALIST SERVICES

Three senior specialist posts were created.

Specialist service at Mulago Hospital are provided by Government specialists and by members of the staff of Makerere Medical School.

It has been possible to initiate a policy of posting Special Grade Medical Officers to the provinces: a surgeon with the F.R.C.S. and a physician with the M.R.C.P. were attached to the hospital at Mbale and an obstetrician with specialist qualifications has been posted to Masaka.

Tours in the provinces are made by specialists as often as possible to advise District Medical Officers on local problems and to permit discussions with headquarters for the improvement of services.

The East African Society of Surgeons is investigating the possibility of initiating higher surgical training for local candidates.

K. LOCAL GOVERNMENT

BUGANDA

By the terms of the Buganda Agreement, 1955, the Kabaka's Government will assume responsibility for administration of rural hospitals, dispensaries, aid posts and rural health services. These services are to be run in accordance with the general policy of the Protectorate Government.

At the end of the year arrangements were being made for the secondment or transfer of existing staff, headed by the Provincial Medical Officer, Buganda, who will henceforward be called the Permanent Secretary to the Minister of Health of the Kabaka's Government.

The Protectorate Government acting through its officers is entitled to inspect transferred services which were previously subject to inspection.

AFRICAN LOCAL GOVERNMENTS

Policy as at present laid down places on African Local Governments the responsibility for building dispensaries, maternity units, sub-dispensaries, aid posts, the staff housing attached, and for the maintenance of the buildings and grounds. Thereafter the Protectorate Government accepts full financial responsibility for the recurrent cost of the medical and nursing staff and for the supply of drugs, dressings and the bulk of the equipment.

Rural health services concerned with improvement of housing, provision of latrines and protection of water supplies have been delegated to African Local Governments, but the cost of necessary qualified technical and professional officers remains with the Protectorate Government.

Ambulance services are provided by African Local Governments in certain districts but in others the Central Government has provided vehicles until such time as the local authorities make the necessary provision.

During the year the District Councils Ordinance was passed whereby powers, mandatory and permissive, are given to African District Councils to assume responsibility for certain public health functions.

The amount of money expended by African Local Governments on health services in the 1954/55 financial year was as follows:—

	£
Buganda	23,926
Northern Province :	
Acholi	4,084*
Karamoja	498
Lango	5,546
West Nile	8,480
Madi	364
Western Province :	
Ankole	7,314
Bunyoro	3,599
Kigezi	6,977
Toro	5,642
Eastern Province :	
Busoga	16,790
Bugisu	6,806
Bukedi	8,547
Teso	7,683

*no figures of capital expenditure were available.

A large proportion of the sums voted were utilised for Capital Expenditure on new dispensaries and for maintenance or replacement of existing rural units.

OTHER LOCAL AUTHORITIES

Kampala Municipality has its own Medical Officer of Health and Health Staff and receives a block grant from the Protectorate Government. A Public Health Committee of the Municipal Council is responsible for formulating policy.

Townships such as Jinja, Mbale and Masaka are approaching the stage when they will be able to accept responsibility for their own public health affairs, although it is possible that initially secondment of Government staff such as Medical Officers of Health and Health Inspectors will be necessary.

The financial relations between Central Government and Local Authorities are being examined and it is possible that general policy will need to be revised with a view to deciding if a larger share of recurrent expenditure should not be accepted by the Local Authorities who would then receive an increased block grant or a percentage grant on expenditure on health services from the Protectorate Government.

L. MISSION HOSPITALS' MEDICAL SERVICES

Mission hospitals have continued to assist in meeting the insatiable demands for curative medicine and in the training of nurses and midwives.

Where hospitals and maternity units are adequately staffed with trained medical and nursing personnel, the standard of work has been good and a high regard for medical ethics has been maintained. The Frazer Committee found reason to comment adversely on some of the smaller units where the staff is not trained in the skills and traditions of medicine and nursing.

In the past a regular grant to missions has been made in respect of nurses and midwives trained for Government, but no particular formula has been used for grants towards capital and recurrent expenditure, and hitherto such grants have been on an *ad hoc* basis.

Recommendations have been made by the Frazer Committee that there should be the closest co-operation between missions and Government in the development of medical and health services and that a definite policy should be laid down governing financial assistance for missions from the Protectorate Government.

Missions have played an important part in leprosy work throughout the Protectorate. Hospitals and settlements at Kumi-Ongino, Buluba, Lake Bunyonyi, Nyenga and Kuluva demonstrate the excellent work which can be achieved by contributions either in personal services or finance from all interested bodies, namely, the mission authorities, the African District Councils, the Protectorate Government, the British Empire Leprosy Relief Association and the Mission to Lepers.

V.—LABORATORY SERVICES

A. District Laboratories

At each of the 20 hospitals throughout the Protectorate (outside Kampala) there is a small clinical laboratory. At 15 of these the work consists of medical microscopy and simple clinical pathology; these laboratories are staffed by 17 Laboratory Assistants and eight Laboratory Orderlies. At five larger centres, Masaka, Mbale, Gulu, Fort Portal, and recently at Jinja, the laboratories are equipped for simple bacteriology and serology, and in many cases serve not only their own, but also adjacent, districts; these laboratories are staffed by one Laboratory Technician (at Jinja) and 11 Laboratory Assistants. The process of providing a wider range of services at district laboratories has continued for several years, and is still proceeding at a rate determined chiefly by the supply of trainable assistants; it is also much influenced by the provision of electric power in districts.

Tests done in the district bacteriology laboratories during the year include:—

	Masaka	Mbale	Gulu	Fort Portal
Blood cultures	32	10	—	20
Stool cultures	14	51	—	5
Urine cultures	13	7	—	—
Other cultures	8	6	—	—
Widal tests	159	228	29	136
Weil-Felix tests	11	—	—	136
Kahn tests	2,188	8,816	2,538	357

What may be termed medical microscopy, however, remains in great demand, and forms the largest portion of the laboratory work especially where Medical Assistants conduct out-patient clinics.

The volume of this work is indicated below:—

Station	Total Specimens	Blood Slides	Stools	Sputa	Genital Smears
Masaka	16,293	7,136	2,827	1,281	1,473
Mbale	28,334	7,799	7,895	250	173
Gulu	16,242	6,357	4,811	252	829
Fort Portal	10,473	3,947	4,068	538	1,080
Jinja	13,479	4,044	1,305	469	367
Other Laboratories in:—					
Buganda	20,647	10,056	3,709	617	1,782
Eastern Province . .	19,321	7,514	4,997	785	2,477
Northern Province . .	46,427	20,294	14,627	1,230	2,927
Western Province . .	33,440	15,057	6,966	1,372	2,466

B. KAMPALA LABORATORIES

A small clinical laboratory is maintained in the European and Asian Hospital, and a larger one in Mulago Hospital. At the latter, in addition to the clinical pathology of the hospital, a certain amount of bacteriological work is done, and the whole of the laboratory side of the blood transfusion service for Kampala is handled. A separate branch of the laboratory dealing with biochemistry is located at Mulago.

The main medical laboratory provides a clinical pathology service for these and other Kampala hospitals, and for general practitioners in Kampala; it acts as a reference laboratory for the small units, controls and services their special equipment such as microscopes, and issues reagents and media; it provides a public health bacteriology service, and is the centre for medico-legal work. Together with the Mulago laboratory it is the training centre for laboratory assistants; it maintains a library integrated with that of the Makerere Medical School, and it gives facilities for research into local problems, and accommodation for related units and visiting workers. Some aspects of the year's work are mentioned below.

HISTOPATHOLOGY

Two thousand, four hundred and twenty-one blocks were prepared from the following sources:—

	cases
Autopsy material	169
Surgical biopsies, Mulago Hospital	536
District Hospitals	354
Mission Hospitals	184
European and Asian Hospital	93

MEDICO-LEGAL WORK

Medico-legal work showed an unprecedented increase to 461 autopsies for the police, from an average of 298 in the preceding three years. The number of exhibits examined (65) showed no change. It is becoming more common for litigants in paternity cases to seek laboratory tests for blood grouping. The intention is always the opposite of European practice, that is, the putative fathers are *claiming* paternity, but from the laboratory point of view this makes little difference, for the exclusion of one of the claimants is a result helpful to the court.

BACTERIOLOGY

Work was continued in connection with the Medical Research Council chemotherapy trials for tuberculosis. Eight virulent strains of *C. diphtheriae* were isolated, four of them in the month of December. *Salmonellae* were isolated five times; *S.bareilly* once from faeces, and *S. typhimurium* from faeces, a post partum uterus, an appendix abscess, and a splenic abscess. Forty-one positive cultures of *B. dysenteriae* were obtained, of which 33 were of *flexner* types, 5 of *sonne*, and one each *schmitz* and *shiga*.

Bacteriological tests were made on water supplies on 156 occasions, 99 of these being on the township supplies of Entebbe, Jinja, and Kampala.

HAEMATOLOGY

Investigation of abnormal haemoglobins continued. No examples of haemoglobins C or D were found in a survey of 500 African subjects. The incidence of cerebral malaria, and of malarial deaths, was determined in 688 consecutive admissions to a children's ward; these fatal or potentially fatal results of malaria were not encountered amongst the 130 children who were sicklers.

BLOOD TRANSFUSION

Donors tested	African	Asian	European
Red Cross donors	562	4	31
Other donors	12	191	6
Patients tested			
Grouping ABO	853	471	216
Rh (D)	30	459	206
Cross matching	664	125	13

VENEREAL DISEASE DIAGNOSIS

Two thousand, six hundred and eighty darkground examinations were performed at Mulago Hospital, of which 1,438 were considered to show *T. pallidum*.

Kahn tests numbered 23,191 on blood and 615 on cerebro-spinal fluid. Seventy-four were from European, 206 from Asian, and 23,526 from African sources. For the tests on blood, the aggregate results were:—

Strong (positive) reactions	2,543
Weak (doubtful) reactions	2,214
Negative reactions	18,434

The above negative-reaction rate (80%) is much higher than in previous years, when it was usually in the region of 50%. This is because a two-tube, instead of three-tube, test was introduced at the beginning of the year. This had the effect of transferring many of the weakest reactions to the "negative" group. The interpretation of anything falling between a negative and a strong positive is always difficult in this country, and it has been noticed that these intermediate reactions are three times as common in sera sent through the post as they are in sera from Mulago Hospital. The intention was that this doubtful fringe should be reduced, and it has been confirmed at the Male V.D. Clinic at Mulago that the present results accord well with the clinical states.

Urethral smears were examined at Mulago Hospital as follows:—

	Total examined	Positive for gonococci
Male V.D. Clinic	5,696	3,548
Female clinic	2,463	449

REPORT OF THE GOVERNMENT CHEMIST

The total number of samples and exhibits examined during the year was 448, as against 423 for the previous year. The following table shows the distribution of samples:—

Water	37
Foodstuff	139
Forensic chemical examination	289
Medical Department	32
Other Government departments and miscellaneous consulting work	51
	448

WATER

Thirty-seven samples of water were examined during the year 21 of which were for complete analysis for suitability for domestic and industrial uses. The remaining samples were examined for trace elements such as fluorine, residual chlorine, copper and arsenic.

FOODSTUFF

Eighty-nine samples of fresh milk were examined for Health Authorities, of which 33 (e.g., 37%) were found to be impoverished either by abstraction of fat or the addition of water. This is a slight improvement over the previous year, when 57% of milk samples were found to be impoverished. It is hoped to acquire a Hortvett freezing point apparatus shortly which will simplify the detection of adulterated milks. Nine samples of milk examined for firms and individuals were almost all found to be impoverished.

Other foodstuffs examined for Health Authorities included maize, cheese, bread, aerated water, fruit juices, cassava and vinegar. The majority of these were examined for presence of extraneous contaminants.

Foods examined on behalf of firms and private individuals included vegetable oil, seed cakes, sugar, jaggery and wine.

Forensic Chemical Examination

Two hundred and two exhibits from 63 cases were received for the detection of poisons. Poisons were found in 23 of these cases; they included arsenic, bismuth, caustic soda, sulphuric acid, alcohol, carbon monoxide and colchicine.

The following substances were identified in connection with cases of illegal practice and sale of medicine: penicillin, bismuth oxide, strychnine hydrochloride, santonin, quinine salts, mepacrine and the roots of *Acocanthear Oubais.*

Other examinations included 25 exhibits of waragi, 13 exhibits of black jaggery, 19 exhibits from four cases of suspected arson where kerosene and diesel oil were detected by paper chromatography, 18 exhibits of wet and musty coffee, adulterated simsim oil, concrete, counterfeit coin and the identification of dyestuff in a currency note theft case.

Medical

The majority of specimens received were for detection of poisons and those found included arsenic, alcohol, glycosides and an alkaloid which could not be identified. Procaine penicillin in subcutaneous tissue was confirmed in one case, by the detection of aluminium. Other samples examined were pharmaceutical preparations for identification and assay.

Miscellaneous

Samples examined for the Customs included beer, textile materials, red palm oil, perfumes and dyestuff.

Calorific and nutritive values of safari diets were assessed for the Police Department. Chromatographic studies on inks, was carried out on behalf of the same department. Work on this problem is still in progress.

Two samples received from the Forestry Department included a wood for the identification of the colouring matter. A method was evolved for the detection of penetration in wood of an insecticide containing arsenic, chromium and fluoride.

Three samples were examined for the factories Inspectorate, which were concrete, bitumen emulsion and rubber solution.

Four samples of waragi were examined for the Resident's Office, Buganda, to assess the impurities present.

Other samples from official sources included soil analysis for the Public Works Department and examination for violation of mail for the Post Office.

Seven samples examined for firms and private individuals included ammonium sulphate, urine for chromatographic analysis of amino acids and samples of textile.

VI.—TRAINING SCHOOLS

NURSING AND MIDWIFERY

The building of a new training school for nurses and midwives was commenced at Mulago Hospital during 1955 and should be ready for occupation in 1956.

A lecture theatre, demonstration rooms, classrooms, library, study room and offices for the Sister Tutors are included in the plan and these improved facilities will permit of more satisfactory organisation of the training courses.

The number of suitable candidates for training continues to be below the requirements, but this is beginning to show signs of improvement.

MULAGO NURSES

Fifty candidates were accepted for training during 1955, 18 completed training during 1955, and 28 discontinued training during 1955. All the candidates from Mulago Hospital who presented themselves for the final examinations in nursing during 1955 were successful at their first attempt.

In May 1955, six candidates, all of them certificated nurses entered from Mulago Hospital for the examination of the Uganda Midwives Board; five were successful and the other, who was referred, passed in the November examination. These were the first midwives to be trained at a Government institution.

PUPIL MIDWIVES

Sixteen candidates (other than Certificated Nurses) were accepted for training during 1955; seven candidates (other than Certificated Nurses) discontinued training during 1955, seven Certificated Nurses were accepted and seven candidates are continuing training.

NORTHERN PROVINCE TRAINING SCHOOL FOR MIDWIVES, GULU

In December the new training school was formally opened by Mrs. Trim, O.B.E., wife of the Director of Medical Services. It is intended to recruit candidates from the Northern Province and to post them within that area when they are qualified. At present the school is a small one with dormitory accommodation for ten pupils, dining and recreation room, kitchen, etc., classrooms and offices for the Medical Officer in charge and the Midwifery Tutor. It has been so designed that it can be extended.

During the training of nurses and midwives emphasis is placed on child welfare to an increasing extent. The vehicle provided by UNICEF has proved invaluable in taking the students to clinics, etc., in the Kampala area.

MALE TRAINING SCHOOLS

From the beginning of 1955, the Junior Secondary Leaving Certificate was accepted as the minimal educational standard, and candidates were admitted for a two years course of training as Senior Nursing Orderlies at Masaka, Lira and Jinja Training Centres. A qualifying examination will be held at the end of this period and the best from the three schools will be selected for a further year at Masaka Training Centre. At the end of this time an examination will be held to permit them to qualify as Medical Assistants.

At Lira Training Centre, 17 trainees completed the course successfully during 1955 and 23 new students were accepted for training. Eight candidates discontinued training during the year leaving 35 students in training on 31st December, 1955.

The new training centre at Jinja with accommodation for 32 trainees was opened in April and the first group is now undergoing training. Five of the original 20 students have discontinued training.

At Masaka Training Centre 35 new students entered for training as Senior Nursing Orderlies during 1955, 16 students qualified and 13 discontinued training.

At the end of the year the total of students under training as Senior Nursing Orderlies and as Medical Assistants numbered 68.

In February a short refresher course was held at Masaka Training Centre for Medical Assistants in Government service and in June a course for nurses and midwives, open to both Government and mission hospital staffs, was arranged at Mulago Hospital.

During the year additional teaching equipment has been provided for all training schools by UNICEF.

SCHOOL OF HYGIENE, MBALE

Extensions to this training school have now been completed and the school can accommodate: —

16 Assistant Health Inspector trainees ... First Year.
16 Assistant Health Inspector trainees ... Second Year.
16 Assistant Health Inspector trainees ... Third Year.
20 Hygiene Orderly trainees ... ... First Year.
20 Hygiene Orderly trainees ... ... Second Year.
TOTAL ... 88 Trainees.

There is an Instructor of Hygiene in charge with one Assistant Instructor and four Assistant Health Inspector teachers. The minimum educational qualification has now been raised to Cambridge School Certificate for the course for Assistant Health Inspectors and Junior Secondary Leaving Certificate for Hygiene Orderlies.

At the end of 1955 six trainees passed the Joint East African Examination Board examination and four failed.

Negotiations were initiated with the Royal Technical College in Nairobi whereby Assistant Health Inspectors might take further studies and thereby obtain a higher qualification which would give them the status of Health Inspectors.

Twenty Health Orderlies on a special course passed a departmental examination and qualified as Hygiene Orderlies.

The second year of the course for Assistant Health Inspectors consists mainly of practical work in the urban and rural areas of Mbale. Among other duties they carry out public health surveys, and assist in constructing exhibits, running county shows, in improvements to water supplies and in malaria and snail surveys.

The Hygiene Orderlies likewise spend some 50% of their time in the field.

TRAINING OF OTHER CATEGORIES

The following were the numbers of other groups of ancillary staff under training at the end of the year:—

Laboratory Assistants ...	15
Dispensers	5
Assistant Radiographers ...	3

Shortage of teaching staff and accommodation make it impossible to conduct a set course for Entomological Assistants who at present receive only practical instruction in the field.

The training of Assistant Storekeepers has been referred to under Pharmaceutical Services.

Practical training in the wards is given to junior nursing orderlies and wardmaids whenever qualified nursing staff is available for such training. Examinations are conducted by the Matron-in-Chief in the course of her tours of inspection. As soon as adequate teaching staff is available, a syllabus of training will be drawn up which will consist mainly of practical training with a limited number of lectures.

LEGISLATION

DANGEROUS DRUGS ORDINANCE, CAP. 97

Legal Notice 124 amends Dangerous Drugs Rules.

DISTRICT COUNCIL BYE-LAWS

Legal Notice 15 makes provision for the Compulsory Registration of Births and Deaths—Busoga.

THE DISTRICT ADMINISTRATION (DISTRICT COUNCILS) ORDINANCE, 1955

Legal Notice 171 gives Regulations *re* Ankole.

Legal Notice 210 gives Regulations *re* West Nile.

Legal Notice 244 gives Regulations *re* Acholi.

FACTORIES ORDINANCE, 1952

General Notice 578 appoints members of the Factories Advisory Board.

General Notice 766 appoints temporary members of the Factories Advisory Board.

HOTELS ORDINANCE, 1952

General Notice 597 appoints members of Hotels Board.

REGISTRATION OF NURSES (AMENDMENT) ORDINANCE NO. 13 OF 1955

Amends Cap. 94.

MEDICAL PRACTITIONERS AND DENTISTS (AMENDMENT) ORDINANCE NO. 19 OF 1953

General Notice 68 gives list of registered medical practitioners on 1st January, 1955.

General Notice 69 gives list of registered dentists on 1st January, 1955.

General Notices 70 and 74 give lists of licensed dentists on 1st January, 1955.

General Notice 73 gives list of licensed medical practitioners on 1st January, 1955.

General Notice 75 gives list of provisionally licensed medical practitioners on 1st January, 1955.

General Notice 791 appoints members of Medical Board.

MIDWIVES' ORDINANCE, CAP. 95

General Notices 71 and 72 give lists of Midwives on the Register on 1st January, 1955.

MIDWIVES (AMENDMENT) ORDINANCE NO. 14 OF 1955

Amends Cap. 95.

PHARMACY AND POISONS ORDINANCE, 1946

General Notice 272 gives list of those licensed to sell poisons in Part 2 of the Poisons List on 1st March, 1955.

General Notice 333 draws attention to the rules governing the sale of patent medicines.

General Notice 334 exempts hospitals and dispensaries from certain provisions of the Ordinance.

General Notice 335 lists those authorised to give certificates under section 21 (2) *c* of the Ordinance.

General Notice 336 gives list of registered premises on 1st February, 1955.

General Notice 337 gives list of registered pharmacists on 1st February, 1955.

General Notice 338 gives list of registered wholesalers on 1st February, 1955.

General Notice 451 lists shopkeepers licensed as Licensed Sellers of Poisons under section 28 of the Ordinance.

Poison Rules

Legal Notice 104—addition of preparation to the Fifth Schedule.

Legal Notice 105—Poisons List (Confirmation) (Amendment) Order 1955—addition of preparation to Part I of the Poisons List.

PUBLIC HEALTH ORDINANCE, CAP. 98

Legal Notice 50 gives areas in Busoga District to be used as cemeteries for Jinja Township.

Legal Notice 99 closes area in Busoga District described in schedule as a cemetery for Jinja Township.

PUBLIC HEALTH (SALE OF MILK AND MILK PRODUCTS) RULES

Legal Notices 130 and 206 amend the First Schedule.

Public Health (Meat) Rules

Legal Notice 227 adds Iganga to the First Schedule.

THE SLEEPING SICKNESS ORDINANCE, CAP. 100

THE SLEEPING SICKNESS (FISHING) RULES

Legal Notice 81 amends the First Schedule of the Rules.

TOWN AND COUNTRY PLANNING ORDINANCE, 1951

Legal Notice 113 declares Mbale as a Planning Area.

Legal Notice 131—Jinja Outline Scheme.

Legal Notice 132 appoints Mbale Township Authority to be Planning Committee for Mbale Planning Area.

Legal Notice 151 declares Masaka as a Planning Area.

Legal Notice 183 declares Kawempe as a Planning Area.

Legal Notice 203 appoints Masaka Township Authority to be Planning Committee for Masaka Planning Area.

Legal Notice 205 amends Regulation 2.

WORKMEN'S COMPENSATION (AMENDMENT) ORDINANCE NO. 43 OF 1955

Amends Cap. 91.

Legal Notice 238 gives date of commencement of the Workmen's Compensation (Amendment) Ordinance.

MISCELLANEOUS

EUROPEAN AND ASIAN HOSPITAL

General Notice 132 notifies public of services provided as called for in Government White Paper on its administration.

COMMITTEE OF ENQUIRY

General Notice 742 appoints members of the Committee of Enquiry into Medical and Health Services.

Appendix II

MEDICAL RESEARCH

The following medical research work was carried out in 1955 in Government Hospitals by members of the Medical Department, the staff of Makerere Medical School and members of the Medical Research Council:—

Dental

Incidence of caries in Baganda and other tribes, possible association with M–hypoplasia.—P. R. ASPLET.

Paediatrics

Diarrhoea and Vomiting in children.—J. LUDER.

Growth and Development

(1) Children: growth and development, causes of ill-health.—H. F. WELBOURN.

(2) Physical and Psychological Development of children attending Child Welfare Clinics.—J. MCFIE.

(3) Psychological Testing of Technical Schoolboys.—J. MCFIE.

Haematology

(1) Estimation of the percentage of sickle-haemologin in Baganda and Jaluo adults. G. F. JACOB.

(2) A survey for the occurrence, and incidence of, asymtomatic homozygotes for the sickle cell gene, in Baganda adults and children.—G. F. JACOB.

(3) A study of malarial morbidity and mortality in sickling and non-sickling children respectively.—A. B. RAPER.

(4) A collection of hæmatological and genetic data in Indian families presenting thalassæmia and other familial anæmias.—A. B. RAPER and G. F. JACOB.

Heart and Circulation

(1) Endomyocardial fibrosis.—A. W. WILLIAMS and A. G. M. DAVIES.

(2) Arterial blood pressure in the general population.—A. W. WILLIAMS.

Leprosy

(1) Incidence and epidemiology.—J. A. K. BROWN.

(2) Tuberculin Reactions, by intradermal injections and use of Heath apparatus, in lepers.—J. A. K. BROWN.

(3) Lepromin and Tuberculin reactions in selected communities.—J. A. K. Brown.

Malaria

Trials of Chloroquine.—H. C. Trowell.

Midwifery

(1) A study of foetal head sizes in relation to determining post-maturity.—W. H. D. Scotland.

(2) A study in intra-uterine pressure.—W. H. D. Scotland.

(3) Radiology of local pelves.—E. Sibthorpe and A. G. M. Davies.

(4) Size of foetal head, fat and haemoglobin estimations.—E. Sibthorpe.

(5) Action of native drugs on the uterus.—C. Rendle Short.

New Growths

The effects of testosterone on Kaposi sarcoma.—J. Cook.

Nutrition

(1) Biochemistry, growth and development, electroencephalography, etc., M.R.C. Nutrition Unit.—R. F. A. Dean and others.

(2) Nutrition surveys: serum proteins, Vitamin A deficiency.—J. McFie.

Onchocerciasis

Epidemiology, and study of species of simulium fly.—G. B. Barnley.

Peptic Ulcer.—A. B. Raper.

Respiratory Infections.—H. M. Leather and A. W. Williams.

Splenomegaly

(1) Aetiology.—H. C. Trowell.

(2) Aetiology.—H. M. Leather.

Tuberculosis

(1) Tuberculin Test Surveys.—G. M. Short.

(2) Chemotherapy.—P. W. Hutton and A. W. Williams.

Appendix III

SUMMARY OF REVENUE AND EXPENDITURE

	Revenue		Expenditure			Total
	Charges Raised	Capitation Fees	Personal Emoluments	Other Charges	Special Expenditure	
	£	£	£	£	£	£
1950	12,838	4,575	334,478	217,656	9,227	561,361
1951	16,607	5,894	422,986	250,029	74,779	747,794
1952	28,190	7,073	460,130	370,026	77,826	907,982
1953	32,308	7,912	499,472	411,769	50,236	961,477
Holding Budget 1954 . .	19,514	3,438	270,755	180,007	16,726	467,488
1954/55 . .	47,264	9,285	735,616	431,832	31,655	1,199,103

1954 Holding Budget	Revenue	1954–1955	
Actual		Estimated	Actual
£		£	£
	Charges for Services Rendered—		
8,980	Medical and dental charges and hospital and X-ray fees	16,000	26,476
—	Nursing Sisters' quarters	—	1,318
	Services subject to Part Repayment to Officers—		
1,012	Medical fees: Workmen's Compensation Ordinance	3,000	3,597
9,522	Medical and dental private fees	14,000	15,873
19,514	Total Revenue Collected £	33,000	47,264
	Capitation Fee—		
3,029	East African Railways and Harbours	4,700	5,723
409	Other bodies	3,200	3,562
	Contributions from African Local Governments—		
1,000	Buganda—Medical stores	12,200	4,400
	Other—		
	East African Railways and Harbours—		
138	Anti-malarial clearings	300	323
—	Sleeping sickness clearings	142	98
4,638	Other East African Governments for Mulago Teaching Hospital	7,500	5,950
	Colonial Development and Welfare Schemes—		
10,000	F.1351 Medical Department	40,000	40,000
38,728	Total £	101,042	107,320
	Expenditure		
	Staff—		
254,551	Personal emoluments (graded staff)	574,848	698,032
16,204	Casual labour	33,751	37,584
30,780	Transport of staff and patients	63,928	65,314
3,767	Part reimbursement of fees collected by officers from private patients	6,200	7,340
154	Workmen's Compensation: Payment to Government medical practitioners	1,500	547
116	Medical and nursing attendance by private practitioners and nurses	580	785
669	Special courses of instruction for medical staff	1,200	1,270
—	Mulago Hospital African staff recreation fund	10	10
—	Financial assistance to departmental officers for research	500	—
	Materials—		
84,311	Stores, drugs and equipment	234,000	215,326
1,494	Transport of stores	1,600	1,525
219	Incidentals	600	565
211	Publications	450	454
	Upkeep—		
32,880	Maintenance of hospitals, laboratory and training centres	75,520	73,827
15,094	Post Office services, water and electricity	36,818	34,209
146	Expenses in connection with non-African mental patients	500	438
	Hygiene—		
2,653	Control of epidemic and endemic diseases	9,226	9,107
258	Public health propaganda	1,550	1,244
	Contributions—		
3,838	Grants to missions for maintenance of training schools for nurses and midwives	10,631	8,876
3,067	Grants to missions for relief of leprosy	5,800	5,739
250	Grant to C.M.S. Hospital, Kabarole	675	675
50	Lady Cook Memorial Scholarships for African nurses and midwives	100	100
50	Maintenance of Red Cross van for Blood Transfusion Service	500	500

1954 Holding Budget	**Expenditure**—*continued*	1954–1955	
Actual		Estimated	Actual
£		£	£
—	Grants to Local Authority leper settlements	4,000	3,981
	SPECIAL EXPENDITURE—		
4,086	Equipment for hospitals and dispensaries	—	13,708
544	Equipment for training schools	200	264
1	Equipment for training Radiographers	—	—
3	Equipment, dental, anaesthetic	—	—
33	X-ray equipment, Mulago	—	—
246	Office equipment	—	256
1,435	Purchase of motor vehicles	6,717	8,354
45	Fire protection appliances	—	—
819	Simulium eradication	—	—
500	Building grants to leper settlements	1,000	1,000
—	New Nursing Sisters quarters (Mbale) equipment	—	175
3,000	Paediatric Research Scheme	7,607	4,037
1,014	Transfer of Medical Services to Buganda Government—Purchase of lorry	—	—
5,000	Buluba Leprosy Centre capital grant	—	—
—	Mulago African staff recreation-playing fields and purchase of equipment	641	771
—	Medical Research Council/UNICEF Food processing research	4,000	—
—	Equipment for new buildings—Health Education	1,000	225
—	Special equipment and materials for Mulago Hospital	7,500	2,103
—	W.H.O. Nutrition Survey	—	762
£467,488	TOTAL MEDICAL DEPARTMENT £	1,093,152	1,199,103
	PUBLIC WORKS DEPARTMENT—		
76,069	New buildings and extensions	229,252	184,444
601	Maintenance of temporary buildings	1,320	—
	TOWNSHIP AND MUNICIPALITY—		
7,489	Mosquito control	23,145	18,821
	PROVINCIAL ADMINISTRATION—		
(990)	Sleeping Sickness Inspectors	1,458	(1,458)
5,900	Sleeping sickness clearings	12,907	10,202
	MISCELLANEOUS—		
12,268	Passages	25,000	32,915
2,331	Travelling on leave in East Africa	5,750	5,493

Appendix IV

STAFF

HONOURS

MISS T. THOMSON	*Matron Grade I*	Member of the Most Excellent Order of the British Empire.
DR. MOHAMED FAQUIR	*Medical Officer*	Member of the Most Excellent Order of the British Empire.
DR. A. K. KIBAYA	*Medical Officer (E.A.)*	Member of the Most Excellent Order of the British Empire.
MR. Y. MUSOKE	*Clinical Writer*	The Certificate of Honour.

POST GRADUATE DIPLOMAS

MURPHY, G. G.	D.P.H. (*Lond.*) July, 1955.
MOORE, W.	D.T.M. & H. (*Eng.*) July, 1955.
KARRACH, H. A.	D.T.M. & H. (*Eng.*) July, 1955.
SHORT, G. M.	T.D.D. (*Wales*) January, 1955.
SHORE, H.	D.T.W. & H. (*Eng.*) February, 1955.

SENIOR STAFF

Director	E. A. Trim, O.B.E., M.D., M.R.C.S., D.T.M.&H.
Deputy Director	J. K. Hunter, M.B., D.T.M.&H., D.P.H.
Assistant Director	E. M. Clark, M.R.C.S., D.T.M.&H.
Senior Specialists	A. J. Boase, O.B.E., F.R.C.S., D.O.M.S.
	A. A. Alderdice, M.B., M.R.C.P.
	H. C. Trowell, O.B.E., M.D., F.R.C.P.
Specialists:—	
Physicians	P. W. Hutton, M.D., M.R.C.P., D.T.M.&H.
	J. M. Vaizey, B.A., M.D., M.R.C.P., D.T.M.&H.
Surgeons	I. W. McAdam, M.B., F.R.C.S.
	D. P. Burkitt, M.D., F.R.C.S.
Radiologist	*Vacant.*
Alienist	G. Campbell Young, M.R.C.S., D.P.M.
Anaesthetist	H. R. Hudd, B.SC., M.B., M.R.C.S., D.A.
Leprologist	J. A. K. Brown, B.SC., M.D., M.R.C.S., D.T.M.&H.
Gynaecologist	H. N. Mansfield, M.D., M.R.C.S., M.R.C.O.G.
Senior Medical Officers	D. G. Snell, M.B., M.R.C.S., D.P.H., D.T.M.&H.
	W. Barnetson, M.B., D.T.M.&H.
	A. F. Fowler, M.R.C.S., D.P.H., D.T.M.&H.
	J. N. Twohig, M.B., D.P.H.
	B. E. C. Hopwood, M.R.C.S., D.P.H., D.I.H.
Senior Pathologist	A. B. Raper, B.SC., M.D., M.R.C.P., D.T.M.&H.
Senior Entomologist	G. R. Barnley, M.SC.
Matron-in-Chief	Miss M. O. C. Bonthron, S.R.N., S.C.M., R.F.N., Diploma in Nursing.
Chief Pharmacist	J. C. Baird, M.P.S.
Chief Health Inspector	V. A. Bunge, M.R.S.H.
Administrative Secretary	E. J. Kennard.

APPOINTMENTS AND PROMOTIONS

Trim, Dr. E. A., O.B.E.	Director	30–6–55
Clark, Dr. E. M.	Assistant Director	23–4–55
Boase, Dr. A. J., O.B.E.	Senior Specialist	22–10–54
Trowell, Dr. A. C., O.B.E.	Senior Specialist	22–10–54
Alderdice, Dr. A. A.	Senior Specialist	22–10–54
Vaizey, Dr. J. M.	Specialist (Physician)	1–7–55
Esmonde, Dr. P.	Medical Officer	13–1–55
Daly, Dr. W. M.	Medical Officer	13–1–55
Hall-Craggs, Dr. E. C. B.	Medical Officer	10–2–55
Singh, Dr. S. A.	Medical Officer	14–2–55
Horwood, Dr. D. J. C.	Medical Officer	22–7–55
Cox, Dr. J. H.	Medical Officer	28–7–55
Wreford-Smith, Dr. D. M.	Medical Officer	13–8–55
Scotland, Dr. W. H. D.	Medical Officer	9–9–55
Jones, Dr. A. L.	Residen Medical Officer	26–10–55
Williams, Dr. M. S. I.	Resident Medical Officer	30–10–55
Basson, Dr. S. S.	Medical Officer	1–9–55
Khakoo, Dr. M. M.	Medical Intern	13–10–55
Hogan, Dr.	Medical Intern	—
Lothe, Dr. F.	Pathologist	24–11–55
Kisemeswa, Dr. D. N.	Medical Officer (E.A.)	1–7–55
Edyegu, Dr. N. O.	Medical Officer (E.A.)	1–7–55
Lumu, Dr. E. B.	Medical Officer (E.A.)	1–7–55
Bosa, Dr. S. B.	Medical Officer (E.A.)	1–7–55
Rwakihambo, Dr. D. N.	Medical Officer (E.A.)	1–7–55
Byaruhanga, Dr. D. B.	Medical Officer (E.A.)	1–7–55
Bulwanyi, Dr. J.	Assistant Medical Officer	10–1–55
Kamya, Dr. G. W. S.	Assistant Medical Officer	10–1–55
Kibuka Musoke, Dr. T. W.	Assistant Medical Officer	10–1–55
Cruickshank, Miss J. M.	Matron, Grade I	1–7–55
Chandler, Miss M.	Matron, Grade I	1–7–55
Measman, Miss I. P. J.	Matron, Grade II	28–12–55
Dowsett, Miss E. M.	Sister Tutor	—
Flagg, Miss R.	Senior Sister Tutor	1–1–55
Abrahams, Miss J. E.	Midwifery Tutor	28–12–55
Kean, Miss K. M.	Nursing Sister	1–1–55

APPOINTMENTS AND PROMOTIONS—*continued.*

Cobby, Miss J. E.	Nursing Sister	16– 2–55
Halter, Miss H. L. E.	Nursing Sister	30– 3–55
Stewardson, Miss D. J.	Nursing Sister	14– 6–55
Taylor, Miss M.	Nursing Sister	14– 5–55
Thompson, Miss M.	Nursing Sister	1– 7–55
Green, Miss G. L.	Nursing Sister	9– 8–55
Shepherd-Smith, Mrs. R. M.	Nursing Sister	22– 8–55
Hardaker, Miss S.	Nursing Sister	3– 9–55
Hughes, Miss E. K.	Nursing Sister	7– 9–55
Doyle, Miss M. V.	Nursing Sister	8– 9–55
Jackson, Miss J. T.	Nursing Sister	15– 9–55
Cook, Miss M. M. F.	Nursing Sister	6– 7–55
Wash, Miss J. E.	Nursing Sister	20–10–55
Prendergast, Miss C.	Nursing Sister	23–10–55
Mullins, Miss M.	Nursing Sister	23–10–55
Black, Miss E. I.	Nursing Sister	26–10–55
Blackburn, Miss K.	Nursing Sister	26–10–55
Sharp, Miss J. L.	Nursing Sister	25–10–55
Greensweig, Miss S. P.	Nursing Sister	25–10–55
Warwick, Miss M. J.	Nursing Sister	14–11–55
Tinsley, Miss M.	Nursing Sister	28–11–55
Surridge, Miss B. M.	Nursing Sister	5–12–55
Tyrer, Miss B.	Nursing Sister	28–12–55
Souza, Miss Rose de	Asian Nurse/Midwife	28–11–55
Kennard, Mr. E. J.	Administrative Secretary	1– 4–55
Webb, Mr. F.	Senior Hospital Superintendent	1– 7–55
Rees, Mr. B. W.	Hospital Superintendent	1– 7–55
Wilmot, Mr. R. G.	Hospital Superintendent	1– 7–55
Turner, Mr. N. T.	Establishment Officer	22–10–55
Larlham, Mr. D. J.	Senior Storekeeper	1–11–55
Skilton, Mr. E. J.	Assistant Hospital Superintendent	2–12–55
Blain, Mr. P.	Assistant Hospital Superintendent	31–12–55
Jeffrey, Mr. I. W. M.	Dental Surgeon	2– 6–55
Pitts, Mr. J. N.	Assistant Instructor of Hygiene	1– 3–55
McGregor, Mr. G. B.	Health Inspector	15–10–55
McLellan, Mr. J.	Health Inspector	7– 4–55
Loregrove, Mr. J. F.	Health Inspector	5– 5–55
Patel, Mr. K. V.	Pharmacist	12–10–55
Gangolli, Mr. S. D.	Government Chemist	5– 5–55
Daly, Miss R.	Personal Secretary Grade II	27– 4–55
Worthington, Miss B. I.	Personal Secretary Grade II	3– 5–55
Gould, Miss A.	Radiographer	9– 9–55
Summerscales, Miss J. W.	Biochemist	17–11–55

DEPARTURES

Hennessey, Dr. R. S. F., O.B.E.	Director of Medical Services (*on leave pending retirement*)	11– 3–55
Hoare, Dr. C. E. W.	Pathologist (*on leave pending transfer*)	3– 6–55
Elmes, Dr. B. G. T.	Pathologist (*on leave pending resignation*)	28– 2–55
Campbell Young, Dr. G.	Specialist Alienist (*on leave pending retirement*)	1–10–55
Nelson, Dr. G. S.	Medical Officer (*on leave pending transfer*)	18–11–55
Carpenter, Mr. T. R.	Dental Surgeon (*on leave pending completion of short service agreement*)	14– 1–55
Calder, Miss J.	Nursing Sister (*on leave pending transfer*)	3– 4–55
Stanners, Miss E. O.	Nursing Sister (*on leave pending transfer*)	3– 4–55
Moffat, Miss E. A.	Nursing Sister (*resigned*)	14– 3–55
Doyle, Miss M. P.	Nursing Sister (*resigned*	3– 6–55
Stott, Miss M. M.	Nursing Sister (*resigned*)	26– 7–55
Wynne, Miss M. D.	Nursing Sister (*on leave pending completion of contract*)	24– 9–55
Lindsey, Miss M. W.	Nursing Sister (*on leave pending resignation*)	20– 6–55
Buchan, Miss E. C.	Nursing Sister (*on leave pending resignation*)	6– 9–55
Ward, Mrs. M.	Personal Secretary Grade I (*on leave pending resignation*)	18– 4–55
Knight, Mr. A. E.	Health Inspector (*on leave pending resignation*)	3– 5–55
Naylor, Mrs. D. C. H.	Pharmacist (*on leave pending resignation*)	1–12–55

Appendix V

ESTABLISHMENT, 1955

Sanctioned Establishment and Vacancies

Administration

Expatriate Posts

1 Director of Medical Services.
1 Deputy Director.
2 Assistant Directors (1 *vacancy*).
8 Senior Medical Officers (3 *vacancies*).
1 Administrative Secretary.
1 Establishment Officer.
2 Accountants.
8 Personal Secretaries.

"Uganda Civil Service" Posts

6 Section Officers.
7 Office Assistants.
5 Accounts Assistants

General

3 Senior Specialists.
2 Specialist Physicians.
2 Specialist Surgeons.
1 Specialist Gynaecologist.
1 Specialist Anaesthetist.
1 Specialist Leprologist.
109 Medical Officers, Medical Officers (E.A.), Assistant Medical Officers and Senior Assistant Medical Officers.
1 Senior Hospital Superintendent.
3 Hospital Superintendents (1 *vacancy*).
11 Assistant Hospital Superintendents (3 *vacancies*).
1 Welfare Worker.
4 Hospital Assistants (1 *vacancy*).
1 Medico-Social Worker.

2 Senior Sub-Assistant Surgeons.
5 Sub-Assistant Surgeons.
9 Clerks C6–5 (Shadow) and E2–1.
15 Clerks E4–3 and E6–5.
8 Clerks contract plus temporary.
2 Hospital Cooks.
70 Clerical Assistants.
4 Artisans.
1 Mechanic (Lift attendant) (*vacant*).
1 Sub-Overseer.
41 Clinical Writers.

Nursing

1 Matron-in-Chief.
4 Matrons, Grade I.
3 Matrons, Grade II.
1 Senior Sister Tutor.
7 Sister Tutors (1 *vacancy*).
70 Nursing Sisters.
4 Housekeepers (2 *vacancies*).

16 Asian Nurses and Midwives.
320 Nurses and Midwives (filled by 138 Midwives, 138 Nurses and 44 Nurse/Midwives).
273 Medical Assistants (*22 vacancies*).
139 Senior Nursing Orderlies.
567 Nursing Orderlies.
54 Ward Maids.

Laboratory and Entomological

1 Senior Pathologist.
3 Pathologists (1 *vacancy*).
2 Government Chemists (1 *vacancy*).
2 Senior Entomologists and Entomologists.
4 Laboratory Technicians (1 *vacancy*).
1 Assistant Bacteriologist.
1 Malaria Field Officer.
1 Physiological Laboratory Superintendent (seconded for duty at Makerere College).
1 Biochemist.

1 Laboratory Technician.
57 Laboratory Assistants (8 *vacancies*).
3 Entomological Orderlies.
31 Laboratory Orderlies.
7 Entomological Observers.
1 Chemical Assistant.

Pharmaceutical

1 Chief Pharmacist.
4 Pharmacists (1 *vacancy*).
1 Senior Storekeeper.
2 Storekeepers.
1 Inspector of Drugs.

4 Assistant Storekeepers.
48 Dispensers (5 *vacancies*).
19 Assistant Medical Storekeepers (11 *vacancies*).

EXPATRIATE POST		"UGANDA CIVIL SERVICE" POST
	RADIOLOGICAL	
1 Specialist Radiologist (*vacant*).		4 Assistant Radiographers.
5 Radiographers (1 *vacancy*).		
1 Receptionist-Secretary (*vacant*).		
	HYGIENE	
1 Chief Health Inspector.		47 Assistant Health Inspectors (15 *vacancies*).
21 Senior Health Inspectors and Health Inspectors (2 *vacancies*).		94 Hygiene Orderlies (19 *vacancies*).
1 Instructor of Hygiene.		125 Health Orderlies.
1 Assistant Instructor of Hygiene.		
	DENTAL	
5 Dental Surgeons (1 *vacancy*).		3 Dental Orderlies.
2 Dental Mechanics.		
	MENTAL HOSPITAL	
1 Specialist (Alienist).		35 Male Attendants.
1 Superintendent.		20 Female Attendants.
5 Male Nurses (2 *vacancies*).		106 Male Mental Orderlies.
1 Sister-in-Charge.		60 Female Mental Orderlies.
2 Female Nurses.		
	TRANSPORT	
		1 Mechanic.
		1 Vehicle Mechanic.
		2 Drivers (General Division).
		63 Drivers (Employees Division) (5 *vacancies*).
	TRAINING SCHOOL	
1 Instructor of Hygiene.	Included above.	253 Learners.
1 Assistant Instructor of Hygiene.		178 Female nurses in training.
4 Medical Officers		
1 Senior Sister Tutor.		
6 Sister Tutors.		

N.B.—All vacancies for European staff are counted at the end of the year. Other grades are counted during the year.

PATIENTS ATTENDING GOVERNMENT HOSPITALS

OUT-PATIENTS, 1955

List No.	Diseases	African			Asian	European	Total
		Male	Female	Total	Male & female	Male & female	
1.	Tuberculosis of the respiratory system	446	205	651	11	3	665
2.	Other tuberculous diseases	544	373	917	4	1	922
3.	Syphilis	11,952	7,561	19,513	5	—	19,518
4.	Gonorrhoea	14,678	5,382	20,060	12	11	20,083
5.	Other venereal diseases	3,984	2,170	6,154	21	—	6,175
6.	Fevers not otherwise-specified	6,416	3,669	10,085	202	195	10,482
7.	Bacillary dysentery	2,072	1,213	3,285	33	52	3,370
8.	Amoebic dysentery	592	349	941	18	16	975
9.	Diphtheria	3	2	5	5	3	13
10.	Whooping cough	1,251	904	2,155	45	14	2,214
11.	Meningitis (except Tuberculous	4	1	5	—	—	5
12.	Plague	—	—	—	—	—	—
13.	Leprosy	731	910	1,641	1	—	1,642
14.	Tetanus	20	11	31	—	—	31
15.	Anthrax	1	2	3	—	—	3
16.	Acute poliomyelitis	71	33	104	—	2	106
17.	Smallpox—						
	(*a*) Variola major	3	4	7	—	1	8
	(*b*) Variola minor	7	3	10	2	—	12
18.	Measles	620	396	1,016	46	2	1,064
19.	Mumps	177	96	273	9	3	285
20.	Malaria—						
	(*a*) Benign tertian (vivax)	8	19	27	10	40	77
	(*b*) Quartan (malaria)	88	53	141	3	—	144
	(*c*) Malignant tertian (falesparva)	20,039	10,398	30,437	380	70	30,887
	(*d*) Other unspecified malaria	49,182	29,545	78,727	940	142	79,809
21.	Blackwater fever	—	—	—	—	1	1
22.	Schistosomiasis						
	(*a*) Vesical	47	13	60	—	—	60
	(*b*) Intestinal	853	619	1,472	—	1	1,473
23.	Onchocerciasis	275	123	398	14	3	415
24.	Ankylostomiasis	5,407	3,965	9,372	43	1	9,416
25.	Guinea worm	150	46	196	—	—	196
26.	Other helminthic diseases	5,043	3,200	8,243	25	37	8,305
27.	Relapsing fever	8	8	16	3	—	19
28.	Yaws	8,126	5,590	13,716	—	—	13,716
29.	Chicken pox	1,043	593	1,636	13	15	1,664
30.	Trachoma	3,226	2,834	6,060	60	—	6,120
31.	Other diseases of eye and annexa (except Ophthalmia neonatorum)	16,721	8,943	25,664	352	296	26,312
32.	Trypanosomiasis—						
	(*a*) T. gambiense	1	1	2	—	—	2
	(*b*) T. rhodesiense	—	—	—	—	—	—
	(*c*) Unspecified	—	—	—	—	2	2
33.	Tinea	1,238	806	2,044	20	52	2,116
34.	Scabies	5,575	2,862	8,437	22	1	8,460
35.	Cancer and other tumours—						
	(*a*) Malignant including leukaemia	39	80	119	1	1	121
	(*b*) Benign and unspecified	128	264	392	17	6	415
36.	Asthma	622	147	769	132	33	934

List No.	Diseases	AFRICAN			ASIAN	EUROPEAN	TOTAL
		Male	Female	Total	Male & female	Male & female	
37.	Diabetes	24	8	32	36	6	74
38.	Vitamin deficiency states ..	358	255	613	19	1	633
39.	Diseases of blood and blood forming organs ..	1,179	1,752	2,931	138	26	3,095
40.	Cerebral vascular lesions ..	—	—	—	12	3	15
41.	Mental disorders ..	78	23	101	8	11	120
42.	Epilepsy	68	23	91	4	1	96
43.	Other diseases of nervous system	1,729	1,022	2,751	206	167	3,124
44.	Disease inflammatory of ear and mastoid sinus ..	6,286	3,967	10,253	152	157	10,562
45.	Diseases of the circulatory system						
	(*a*) Heart disease ..	455	477	932	16	14	962
	(*b*) Other circulatory diseases	610	265	875	39	52	966
46.	Pneumonia—						
	(*a*) Lobar pneumonia ..	680	372	1,052	30	4	1,086
	(*b*) Bronchopneumonia	510	317	827	44	38	909
47.	Other diseases of respiratory system	53,388	28,891	82,279	2,030	965	85,274
48.	Diseases of teeth and gums—						
	(*a*) Caries	17,031	9,546	26,577	1,748	5,943	34,268
	(*b*) Other conditions ..	6,921	4,203	11,124	633	1,075	12,832
49.	Appendicitis	2	—	2	12	4	18
50.	Intestinal obstruction and hernia	1,756	464	2,220	11	15	2,246
51.	Gastro-enteritis (over 4 weeks old)	4,144	2,622	6,766	108	310	7,184
52.	Cirrhosis of the liver ..	38	28	66	19	1	86
53.	Other diseases of liver and bile passages	79	32	111	615	33	759
54.	Other diseases of digestive system	33,440	22,882	56,322	22	297	56,641
55.	Nephritis	24	16	40	4	1	45
56.	Hydrocele	642	—	642	118	—	760
57.	Other diseases of genito-urinary system ..	1,560	4,269	5,829	—	168	5,997
58.	Diseases of pregnancy, child birth, and the puerperal state—						
	(*a*) Abortion	—	228	228	12	5	245
	(*b*) Toxaemias of pregnancy ..	—	10	10	21	2	33
	(*c*) Other conditions ..	—	903	903	86	65	1,054
59.	Arthritis and rheumatism	11,252	5,805	17,057	108	54	17,219
60.	Chronic ulcer of leg ..	15,475	5,186	20,661	9	16	20,686
61.	(*a*) Other diseases of skin	16,612	9,565	26,177	588	587	27,352
	(*b*) Other diseases of musculoskeletal system	7,777	3,824	11,601	226	305	12,132
62.	Congenital malformations and diseases of early infancy—						
	(*a*) Diarrhoea of new-born	690	535	1,225	12	2	1,239
	(*b*) Ophthalmia neonatorum	25	10	35	2	—	37
	(*c*) Immaturity ..	1	1	2	2	1	5
	(*d*) All other malformations and diseases of early infancy ..	323	264	587	10	2	599

List No.	Diseases	AFRICAN Male	AFRICAN Female	AFRICAN Total	ASIAN Male & female	EURO-PEAN Male & female	TOTAL
63.	Fractures and dislocations, except where classifiable under item (64) ..	1,300	434	1,734	78	105	1,917
64.	Injuries by animals or insects	1,930	967	2,897	39	142	3,078
65.	Other wounds and superficial injuries (excluding burns)	46,872	13,697	60,569	693	316	61,578
66.	Effects of foreign bodies ..	1,121	573	1,694	14	29	1,737
67.	Burns and scalds ..	3,041	1,887	4,928	64	22	5,014
68.	Poisoning	66	26	92	9	1	102
69.	All other injuries from external causes ..	10,838	3,544	14,382	270	49	14,701
70.	(*a*) Ill-defined conditions	15,530	10,019	25,549	239	474	26,262
	(*b*) Examinations and prophylactic injections	63,442	60,464	123,906	4,173	2,175	130,254
	TOTAL ..	488,688	292,769	781,457	15,128	14,648	811,233

IN-PATIENTS AT GOVERNMENT HOSPITALS, 1955

			AFRICANS			ASIANS	EUROPEANS	TOTAL	DEATHS
			Male	Female	Total	Male and Female	Male and Female		
A	1	Tuberculosis of respiratory system	415	200	615	20	4	639	107
A	2	Tuberculosis of meninges and central nervous system	13	3	16	—	—	16	7
A	3	Tuberculosis of intestines, peritoneum and mesenteric glands	5	7	12	—	—	12	1
A	4	Tuberculosis of bones and joints	60	15	75	—	—	75	2
A	5	Tuberculosis, all other forms	44	18	62	—	—	62	6
A	6	Congenital syphillis	28	32	60	—	—	60	7
A	7	Early syphillis (I and II)	134	106	240	—	—	240	3
A	8	Tabes dorsalis	1	—	1	—	—	1	—
A	9	General paralysis of insane	36	7	43	—	—	43	3
A	10	All other syphillis	73	39	112	—	1	113	5
A	11	Gonococcal infections—							
		(*a*) Genito-urinary	807	567	1,374	4	1	1,379	32
		(*b*) Ophthalmic	21	13	34	—	—	34	—
		(*c*) Other forms	102	45	147	2	—	149	1
A	12	Typhoid fever	396	161	557	8	2	567	65
A	13	Paratyphoid fever and other Salmonella infections	4	5	9	—	4	13	—
A	14	Cholera	—	—	—	—	—	—	—
A	15	Brucellosis (undulant fever)	4	1	5	—	1	6	—
A	16	(*a*) Bacillary dysentery	532	303	835	4	14	853	36
		(*b*) Amoebiasis (excluding symptomless cyst carriers)	193	112	305	6	8	319	5
		(*c*) Other unspecified forms of dysentery	113	102	215	6	6	227	10
A	17	Scarlet fever	—	—	—	1	—	1	—
A	18	Streptococcal sore throat	29	17	46	6	5	57	—
A	19	Erysipelas	3	5	8	2	—	10	1
A	20	Septicaemia and pyaemia	18	9	27	2	2	31	18
A	21	Diphtheria	7	3	10	5	—	15	2
A	22	Whooping cough	250	360	610	2	—	612	22
A	23	Meningococcal infections	36	16	52	3	—	55	18
A	24	Plague	—	—	—	—	—	—	—
A	25	Leprosy	32	19	51	1	—	52	5

Appendix VI (B)—continued

			AFRICANS			ASIANS	EUROPEANS	TOTAL	DEATHS
			Male	Female	Total	Male and Female	Male and Female		
A	26	Tetanus	68	26	94	—	—	94	50
A	27	Anthrax	10	4	14	—	1	15	5
A	28	Acute poliomyelitis	57	36	93	3	5	101	12
A	29	Acute infectious encephalitis	10	4	14	1	—	15	—
A	30	Late effects of acute poliomyelitis and acute infectious encephalitis	20	2	22	—	1	23	1
A	31	Smallpox—							
		(*a*) Variola major	1	2	3	—	—	3	1
		(*b*) Variola minor	5	6	11	1	—	12	—
A	32	Measles	186	206	392	—	2	394	8
A	33	Yellow fever	—	—	—	—	—	—	—
A	34	Infectious hepatitis	75	45	120	4	5	129	11
A	35	Rabies	1	—	1	—	—	1	1
A	36	(*a*) Louse-borne (epidemic) typhus	2	—	2	—	—	2	—
		(*b*) Flea-borne (murine) typhus	33	12	45	1	—	46	1
		(*c*) Tick-borne typhus	2	1	3	—	6	9	—
		(*d*) Unspecified typhus	7	3	10	—	—	10	1
		(*e*) Other rickettsial diseases	9	3	12	1	1	14	—
A	37	(*a*) Vivax malaria (benign tertian)	25	39	64	4	10	78	2
		(*b*) Malariae malaria (quartan)	54	38	92	3	35	130	1
		(*c*) Falciparum malaria (malignant tertian)	2,655	2,676	5,331	41	36	5,408	193
		(*d*) Other unspecified malaria	1,984	1,586	3,570	48	63	3,681	74
		(*e*) Blackwater fever	28	17	45	11	1	57	5
A	38	Schistosomiasis—							
		(*a*) Vesical	57	20	77	—	—	77	1
		(*b*) Intestinal	149	95	244	—	—	244	5
A	39	Hydatid disease	—	—	—	—	—	—	—
A	40	(*a*) Onchocerciasis	112	29	141	1	1	143	—
		(*b*) Loiasis	—	—	—	—	—	—	—
		(*c*) Filariasis (bancrofti)	2	4	6	—	—	6	—
		(*d*) Other filariasis	16	1	17	—	—	17	—
A	41	Ankylostomiasis	851	1,011	1,862	4	—	1,866	8

			Africans			Asians	Europeans	Total	Deaths
			Male	Female	Total	Male and Female	Male and Female		
A	42	(*a*) Tapeworm	154	67	221	1	6	228	6
		(*b*) Ascaris	110	108	218	—	—	218	—
		(*c*) Guinea worm	16	11	27	—	—	27	—
		(*d*) Other helminths	52	31	83	—	—	83	—
A	43	(*a*) Lymphogranuloma venereum	18	33	51	—	1	52	—
		(*b*) Granuloma inguinale, venereal	6	5	11	—	—	11	—
		(*c*) Other and unspecified venereal diseases	86	62	148	—	—	148	1
		(*d*) Food poisoning infection and intoxication (excluding Salmonella infections)	7	2	9	—	—	9	1
		(*e*) Relapsing fever	38	12	50	—	—	50	1
		(*f*) Leptospirosis (Weil's disease)	—	—	—	—	—	—	—
		(*g*) Yaws	83	48	131	—	—	131	—
		(*h*) Chickenpox	231	102	333	—	1	334	1
		(*i*) Dengue	2	5	7	—	—	7	—
		(*j*) Trachoma	630	1,608	2,238	3	—	2,241	—
		(*k*) Sandfly fever	—	—	—	—	—	—	—
		(*l*) Leishmaniasis	—	—	—	—	—	—	—
		(*m*) Trypanosomiasis—							
		(i) T. gambiense	5	3	8	—	—	8	—
		(ii) T. rhodesiense	1	1	2	—	—	2	—
		(iii) Unspecified	24	8	32	—	—	32	3
		(*n*) Tinea	15	5	20	—	—	20	—
		(*o*) Scabies	42	26	68	1	—	69	—
		(*p*) All other parasitic diseases	12	10	22	—	1	23	1
A	44	Malignant neoplasm of—							
		buccal cavity and pharynx	7	—	7	—	1	8	2
A	45	oesophagus	7	—	7	—	—	7	2
A	46	stomach	11	6	17	—	—	17	5
A	47	intestine, except rectum	4	6	10	—	—	10	3
A	48	rectum	7	6	13	—	—	13	3
A	49	larynx	—	—	—	—	—	—	—
A	50	trachea, and of bronchus and lung not specified as secondary	1	1	2	—	—	2	—

			Africans			Asians	Europeans	Total	Deaths
			Male	Female	Total	Male and Female	Male and Female		
		Malignant neoplasm of—							
A	51	breast	4	18	22	2	—	24	—
A	52	cervix uteri	—	58	58	1	—	59	5
A	53	other and unspecified parts of uterus	—	32	32	—	1	33	2
A	54	(*a*) prostate	19	—	19	—	1	20	2
		(*b*) penis	74	—	74	—	—	74	2
A	55	skin	23	11	34	—	1	35	2
A	56	bone and connective tissue	33	25	58	—	—	58	4
A	57	other unspecified sites	108	69	177	2	—	179	29
A	58	Leukaemia and aleukaemia	4	2	6	1	—	7	2
A	59	Neoplasms of lymphatic and haematopoietic system ..	29	12	41	—	—	41	6
A	60	Benign and unspecified neoplasms	118	579	697	3	8	708	18
A	61	Nontoxic goitre	3	21	24	2	2	28	2
A	62	Thyrotoxicosis with or without goitre	1	7	8	4	4	16	1
A	63	Diabetes mellitus	58	20	78	39	7	124	9
A	64	(*a*) Beriberi	—	4	4	—	3	7	1
		(*b*) Pellagra	5	8	13	—	—	13	1
		(*c*) Scurvy	3	1	4	4	—	8	—
		(*d*) Kwashiorkor	246	221	467	—	—	467	58
		(*e*) Other deficiency	88	93	181	3	—	184	24
A	65	(*a*) Hyperchromic anaemias..	10	6	16	2	—	18	2
		(*b*) Hypochromic anaemias	76	141	217	1	—	218	11
		(*c*) Other unspecified anaemias	144	165	309	16	1	326	42
A	66	(*a*) Asthma	185	61	246	35	7	288	5
		(*b*) All other allergic disorders, endocrine, metabolic and blood diseases	180	90	270	6	15	291	19
A	67	Psychoses	240	192	432	8	3	443	3
A	68	Psychoneuroses and disorders of personality	200	98	298	9	15	322	—
A	69	Mental deficiency	14	6	20	3	—	23	3
A	70	Vascular lesions affecting central nervous system ..	35	14	49	7	7	63	15
A	71	Meningitis (except meningococcal and tuberculous) ..	119	80	199	—	—	199	95
A	72	Disseminated sclerosis	1	—	1	1	—	2	—
A	73	Epilepsy	43	19	62	5	1	68	6
A	74	Inflammatory disease of eye	238	122	360	4	2	366	1

			AFRICANS			ASIANS	EUROPEANS	TOTAL	DEATHS
			Male	Female	Total	Male and Female	Male and Female		
A	75	Cataract	49	18	67	34	2	103	—
A	76	Glaucoma	19	7	26	12	3	41	—
A	77	(*a*) Otitis externa	25	11	36	—	4	40	—
		(*b*) Otitis media and mastoiditis	107	75	182	3	2	187	4
		(*c*) Other inflammatory diseases of ear	18	24	42	2	1	45	—
A	78	(*a*) All other diseases and conditions of eye	486	284	770	31	5	806	—
		(*b*) All other diseases of the nervous system and sense organs	114	52	166	7	10	183	7
A	79	Rheumatic fever	15	8	23	4	—	27	—
A	80	Chronic rheumatic heart disease	22	15	37	10	1	48	6
A	81	Arteriosclerotic and degenerative heart disease	23	10	33	9	3	45	3
A	82	Other diseases of heart	218	134	352	12	5	369	78
A	83	Hypertension with heart disease	18	19	37	18	3	58	7
A	84	Hypertension without mention of heart	3	1	4	15	12	31	3
A	85	Disease of arteries	18	5	23	2	1	26	10
A	86	Other diseases of circulatory system	80	39	119	7	20	146	8
A	87	Acute upper respiratory infections	960	708	1,668	24	48	1,740	31
A	88	Influenza	128	41	169	2	4	175	10
A	89	Lobar pneumonia	1,680	851	2,531	16	7	2,554	142
A	90	Bronchopneumonia	881	870	1,751	20	8	1,779	129
A	91	Primary atypical, other and unspecified pneumonia	196	110	306	5	1	312	17
A	92	Acute bronchitis	430	329	759	14	9	782	6
A	93	Bronchitis, chronic and unqualified	118	45	163	11	1	175	6
A	94	Hypertrophy of tonsils and adenoids	85	69	154	21	41	216	7
A	95	Empyema and abscess of lung	47	8	55	1	1	57	4
A	96	Pleurisy	28	9	37	3	5	45	—
A	97	(*a*) Pneumoconiosis	10	7	17	2	—	19	2
		(*b*) All other respiratory diseases	97	60	157	7	7	171	4
A	98	(*a*) Dental caries	45	27	72	1	15	88	—
		(*b*) All other diseases of teeth and gums	65	47	112	5	—	117	1
A	99	Ulcer of stomach	—	1	1	12	9	22	7
A	100	Ulcer of duodenum	50	15	65	10	13	88	2
A	101	Gastritis and duodenitis	52	24	76	7	3	86	2

			Africans			Asians	Europeans	Total	Deaths
			Male	Female	Total	Male and Female	Male and Female		
A	102	Appendicitis	25	8	33	58	36	127	5
A	103	Intestinal obstruction and hernia	1,779	471	2,250	25	24	2,299	158
A	104	(*a*) Gastro-enteritis and colitis (4 weeks and over)	297	221	518	21	2	541	37
		(*b*) Chronic enteritis and ulcerative colitis	63	26	89	7	26	122	8
A	105	Cirrhosis of liver	160	59	219	1	—	220	40
A	106	Cholelithiasis and cholecytitis	10	11	21	13	4	38	—
A	107	Other diseases of digestive system	556	388	944	35	60	1,039	54
A	108	Acute nephritis	38	22	60	4	—	64	6
A	109	Chronic, other and unspecified nephritis	120	55	175	3	4	182	29
A	110	Infections of kidney	27	37	64	7	23	94	6
A	111	Calculi of urinary system	9	4	13	14	24	51	1
A	112	Hyperplasia of prostate	57	—	57	2	1	60	9
A	113	Diseases of breast	2	96	98	4	4	106	1
A	114	(*a*) Hydrocele	343	—	343	39	—	382	2
		(*b*) Disorders of menstruation	—	241	241	110	88	439	3
		(*c*) All other diseases of the genito-urinary system	708	1,527	2,235	67	23	2,325	41
A	115	Sepsis of pregnancy, childbirth and the puerperium	—	180	180	3	—	183	8
A	116	Toxaemias of pregnancy and the puerperium	—	75	75	16	5	96	6
A	117	Haemorrhage of pregnancy and childbirth	—	231	231	6	—	237	9
A	118	Abortion without mention of sepsis or toxaemia	—	1,357	1,357	45	19	1,421	3
A	119	Abortion with sepsis	—	220	220	1	3	224	3
A	120	(*a*) Other complications of pregnancy, chidbirth and the puerperium	—	2,994	2,994	63	31	3,088	116
		(*b*) Delivery without complications	—	7,241	7,241	818	179	8,238	3
A	121	Infections of skin and subcutaneous tissue	913	493	1,406	32	23	1,461	16
A	122	Arthritis and spondylitis	321	104	425	13	9	447	2
A	123	Muscular rheumatism unspecified	124	55	179	4	5	188	—
A	124	Osteomyelitis and periostitis	148	70	218	4	1	223	5
A	125	Ankylosis and acquired musculo-skeletal deformities	32	11	43	4	4	51	—
A	126	(*a*) Chronic ulcer of leg	689	289	978	4	5	987	5
		(*b*) All other diseases of skin	557	221	778	28	20	826	7
		(*c*) All other diseases of musculo-skeletal system	407	219	626	4	2	632	8

			AFRICANS			ASIANS	EUROPEANS	TOTAL	DEATHS
			Male	Female	Total	Male and Female	Male and Female		
A	127	Congenital malformations—							
		spina bifida and meningocele	8	6	14	2	—	16	5
A	128	circulatory system	9	5	14	4	—	18	1
A	129	all others	47	23	70	3	1	74	9
A	130	Birth injuries	10	9	19	—	—	19	9
A	131	Diseases of newborn (under 4 weeks)—							
		asphyxia and atelectasis	28	25	53	—	—	53	28
A	132	(*a*) Diarrhoea	62	48	110	—	3	113	3
		(*b*) Ophthalmia	3	9	12	—	—	12	—
		(*c*) Other infections	22	14	36	—	—	36	12
A	133	Haemolytic disease	5	9	14	1	—	15	3
A	134	Other defined diseases	41	49	90	—	—	90	8
A	135	Ill-defined diseases and immaturity	165	115	220	15	1	296	67
A	136	Senility without mention of psychosis	10	2	12	—	—	12	2
A	137	(*a*) Pyrexia of unknown origin	749	619	1,368	35	91	1,494	47
		(*b*) Observations without need for further medical care ..	1,117	1,735	2,852	153	21	3,026	2
		(*c*) All other ill-defined causes of morbidity	441	671	1,112	44	23	1,179	48
AN	138	Fracture of skull	215	37	252	22	9	283	46
AN	139	Fracture of spine and trunk	116	44	160	9	7	176	14
AN	140	Fracture of limbs	846	222	1,068	102	22	1,192	13
AN	141	Dislocation without fracture	98	29	127	10	1	138	—
AN	142	Sprains and strains of joints and adjacent muscle ..	117	13	130	8	28	166	—
AN	143	Head injury (excluding fracture)	342	70	412	21	6	439	44
AN	144	Internal injury of chest, abdomen and pelvis	150	25	175	5	1	181	29
AN	145	Laceration and open wounds	1,954	474	2,428	48	10	2,486	31
AN	146	Superficial injury, contusion and crushing with intact skin surface	777	308	1,085	19	15	1,119	1
AN	147	Effects of foreign body entering through orifice ..	32	30	62	5	4	71	—
AN	148	Burns and scalds	468	261	729	26	7	762	57
AN	149	Effects of poisons	132	83	215	17	6	238	9
AN	150	All other and unspecified effects of external causes ..	133	111	244	40	16	300	3
		GRAND TOTAL ..	35,268	38,227	73,495	2,729	1,444	77,668	2,713

CAUSES OF DEATH OF NON-AFRICANS

International List No.		Disease	Deaths Registered													Total	Deaths in Hospital	
			Race					Age						Sex				
			European	Indian	Goan	Arab	Other	0–	1–	5–	15–	45–	65–	*M*	*F*		European	Asian
A	1	Respiratory tuberculosis ..	—	2	—	—	—	—	—	—	2	—	—	1	1	2	—	2
A	2	Tuberculosis of meninges ..	—	1	—	—	—	—	1	—	—	—	—	1	—	1	—	1
A	5	Tuberculosis, other forms ..	—	1	—	—	—	—	—	—	1	—	—	—	1	1	—	1
A	26	Tetanus	—	—	—	1	—	—	—	—	1	—	—	1	—	1	—	1
A	28	Acute poliomyelitis	1	—	—	—	—	—	—	—	1	—	—	1	—	1	1	—
A	32	Measles	—	1	—	—	—	—	1	—	—	—	—	1	—	1	—	—
A	37	Malaria—																
		(*a*) Blackwater fever	—	5	—	—	—	—	—	2	2	1	—	5	—	5	—	2
		(*b*) Cerebral malaria	—	10	3	—	—	4	6	1	2	—	—	4	9	13	—	1
		(*c*) Other	—	3	—	—	—	1	1	—	1	—	—	2	1	3	—	—
A	48	Carcinoma of rectum	—	—	—	—	1	—	—	—	—	—	1	1	—	1	—	—
A	51	Carcinoma of breast	—	1	—	—	—	—	—	—	1	—	—	—	1	1	—	—
A	57	Other new growths	1	3	—	—	—	—	—	—	1	3	—	4	—	4	1	—
A	58	Leukaemia	—	2	—	—	—	—	1	1	—	—	—	—	2	2	—	—
A	62	Thyrotoxicosis	—	1	—	—	—	—	—	—	1	—	—	—	1	1	—	—
A	63	Diabetes mellitus	—	4	1	—	—	—	—	—	—	4	1	5	—	5	—	—
A	65	Anaemia	—	2	—	—	—	1	—	—	1	—	—	—	2	2	—	—
A	67	Psychoses	—	1	—	—	—	—	—	—	—	1	—	1	—	1	—	—
A	70	Vascular lesion of brain ..	1	5	—	2	—	—	—	—	2	5	1	7	1	8	1	5
A	73	Epilepsy	—	1	—	—	—	—	—	—	1	—	—	—	1	1	—	1
A	78	Other nervous diseases ..	—	1	—	—	—	—	—	1	—	—	—	—	1	1	—	1
A	80	Chronic rheumatic heart disease ..	—	1	—	—	—	—	—	—	1	—	—	1	—	1	—	—
A	81	Degenerative heart disease ..	—	2	—	—	—	—	—	—	—	2	—	2	—	2	—	1
A	82	Other heart diseases	5	50	2	2	—	—	—	1	15	24	19	43	16	59	1	4
A	83	Hypertension with heart disease ..	—	2	—	—	—	—	—	—	—	2	—	1	1	2	—	—
A	84	Hypertension	—	4	1	—	—	—	—	—	—	4	1	3	2	5	—	2
A	86	Other diseases of circulatory system	—	1	—	—	—	—	—	—	—	1	—	—	1	1	—	1
A	89	Lobar pneumonia	—	1	—	—	—	1	—	—	—	—	—	—	1	1	—	—
A	90	Bronchopneumonia	—	13	1	—	—	7	2	1	1	2	1	8	6	14	—	3
A	91	Other pneumonia	—	5	—	—	—	—	1	1	—	1	2	2	3	5	—	1
A	93	Chronic bronchitis	—	1	—	—	—	—	—	—	—	—	1	1	—	1	—	—

International List No.	Disease	Deaths Registered														Deaths in Hospital	
		Race					Age						Sex		Total		
		European	Indian	Goan	Arab	Other	0–	1–	5–	15–	45–	65–	*M*	*F*		European	Asian
A 97	Other respiratory diseases ..	—	4	1	—	2	—	—	1	2	3	1	4	3	7	—	4
A 99	Ulcer of stomach	—	1	—	—	—	—	—	—	—	1	—	1	—	1	—	1
A 103	Intestinal obstruction	1	1	—	—	—	—	—	—	1	1	—	1	1	2	1	1
A 104	Gastro-enteritis and colitis ..	—	11	1	—	—	6	3	—	1	1	1	7	5	12	—	4
A 105	Cirrhosis of liver	—	2	—	—	—	—	1	1	—	—	—	2	—	2	—	—
A 107	Other diseases of digestive system	—	1	—	—	—	—	—	—	1	—	—	1	—	1	—	1
A 109	Chronic nephritis and other ..	—	3	—	1	1	—	1	—	2	2	—	4	1	5	—	3
A 110	Infections of kidney	—	1	—	—	—	—	—	—	—	1	—	1	—	1	—	1
A 112	Hyperplasia of prostate.. ..	—	—	1	—	—	—	—	—	—	—	1	1	—	1	—	1
A 117	Haemorrhage of pregnancy and childbirth	—	2	—	—	—	—	—	—	2	—	—	—	2	2	—	1
A 120	Other complication of childbirth and pregnancy	—	2	—	—	—	—	—	—	2	—	—	—	2	2	—	1
A 123	Rheumatism	—	—	—	—	1	—	—	—	—	1	—	—	1	1	—	—
A 128	Congenital heart disease ..	—	2	—	—	—	2	—	—	—	—	—	1	1	2	—	1
A 131	Post-natal asphyxia and atelectasis	—	2	—	—	—	2	—	—	—	—	—	—	2	2	—	1
A 132	Infections of the newborn ..	1	4	—	—	—	5	—	—	—	—	—	2	3	5	1	1
A 134	Other defined diseases of early infancy	—	1	1	—	—	1	1	—	—	—	—	1	1	2	—	—
A 135	Ill-defined causes in infancy ..	—	11	—	—	—	8	3	—	—	—	—	10	1	11	—	2
A 136	Senility	—	3	—	—	—	—	—	—	—	—	3	1	2	3	—	—
A 137	Ill-defined and unknown causes ..	—	9	—	—	2	—	—	1	5	3	2	8	3	11	—	5
AE 138	Motor vehicle accidents ..	2	8	—	—	—	—	2	1	5	1	1	8	2	10	—	7
AE 140	Accidental poisoning	—	1	—	—	—	—	1	—	—	—	—	—	1	1	—	1
AE 143	Accident from fire or explosion ..	—	3	—	—	—	—	1	1	1	—	—	—	3	3	—	2
AE 145	Accident caused by firearm ..	1	—	—	—	—	—	—	—	1	—	—	—	1	1	—	—
AE 147	Other accidental causes ..	5	9	—	—	—	—	—	3	8	2	1	12	2	14	3	7
AE 148	Suicide	1	2	—	—	—	—	—	—	3	—	—	1	2	3	—	—
	TOTAL DEATHS FROM INJURIES..	9	23	—	—	—	—	4	5	18	3	2	21	11	32	3	17
	TOTAL DEATHS FROM DISEASES..	10	184	12	6	7	38	22	11	50	63	35	140	79	219	6	55
	TOTAL DEATHS FROM ALL CAUSES	19	207	12	6	7	38	26	16	68	66	37	161	90	251	9	72

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